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- Board of governors elects officers, executes the certificate of incorporation, and adopts constitution and by-laws. J Ind & Eng Chem 10:402 My '18
- Dye association adopts constitution and elects officers. Textile World 53:4559 Ap 6 '18
- Dyestuff association membership. Textile World 53:4018 Mr 2 '18
- Dyestuff association officially organized. Met & Chem Eng 18:479 My 1 '18
- Dyestuff ass'n projected by important interests. Textile World 53:3451-3+ Ja 26 '18; J Ind & Eng Chem 10:231-3 Mr '18
- Dyestuff association started. Textile World 53:4132 Mr 9 '18
- Dyestuff manufacturers perfect organization. Met & Chem Eng 18:289 Mr 15 '18
- American electric railway accountants' association**
Convention, Atlantic City, Oct. 7-8. Elec Ry J 54:sup85-6 O 11 '19
- American electric railway association**
Annual report, 1917. Elec Ry J 51:374 F 23 '18
- Mid-year meeting, New York, March 14. Elec Ry J 53:516-21 Mr 15 '19
- New York conference, Nov. 1. Elec Ry J 52:789-97 N 2 '18
- 38th annual convention, Atlantic City, Oct. 6-10. Elec Ry J 54:sup43-52 O 11 '19
- Value of a company section. B. I. Budd. Elec Ry J 50:1038 D 3 '17

Committee of 100

- Committee of one hundred. Elec Ry J 54:32 JI 5 '19
- Report of the Committee of one hundred. Elec Ry J 54:sup50-2 O 11 '19

War board

- Board issues bulletins. Elec Ry J 51:1018 My 25 '18
- Edwin C. Faber, head of war board traffic bureau. Elec Ry J 51:256 F 2 '18
- Electric railway war board notes. Elec Ry J 50:1080 D 15 '17
- Interurban rates, transportation of draft men to cantonments and other topics discussed. Elec Ry J 51:1157 Je 15 '18
- List of electric railway war board bulletins. Elec Ry J 52:895 N 16 '18
- Problems of the industry and work of electric railway war board. L. S. Storrs. Elec Ry J 51:653 Ap 6 '18
- Traffic bureau organized. Elec Ry J 51:139-41 Ja 19 '18
- War board considers many committee reports. Elec Ry J 50:1164 D 29 '17
- War board presents first annual report. Elec Ry J 52:781-8 N 2 '18
- War board raises jitney question again. Elec Ry J 52:620 O 5 '18
- War board sessions. Elec Ry J 51:526, 715, 980 Mr 16, Ap 13, My 18 '18
- What the war board in doing for the industry. P. H. Gadsden. Elec Ry J 52:831-3 N 9 '18
- Work. Ry R 63:29-31 JI 6 '18
- American electric railway claims association**
Convention, Atlantic City, Oct. 6-9. Elec Ry J 54:718-25 O 11 '19
- American electric railway engineering association**
Convention, Atlantic City, Oct. 6-9. Elec Ry J 54:sup69-82 O 11 '19
- Engineering association committee appointments. Elec Ry J 53:609-10 Mr 22 '19
- American electric railway manufacturers' association**
Manufacturers association votes to disband. Elec Ry J 54:sup86-7 O 11 '19
- American electric railway transportation & traffic association**
10th annual convention, Atlantic City, Oct. 6. Elec Ry J 54:sup53-68 O 11 '19
- American electrical society**
Old-time national electrical society with headquarters in Chicago. W. E. Kelly. Elec R 72:426-7 Mr 9 '18
- American electrochemical society**
Electrochemical industry essential to winning the war. C. G. Schluenderberg. Met & Chem Eng 18:437 My 1 '18
- Fall meeting, Atlantic City, Sept. 30-Oct. 2. Chem & Met Eng 19:609-15 O 15 '18; Iron Age 102:896-7 O 10 '18
- Southern convention. Met & Chem Eng 18:500-12 My 15 '18
- 34th general meeting, Atlantic City, N. J., Sept. 30-Oct. 2, 1918. J. W. Richards. J Ind & Eng Chem 10:944-5 N '18
- 35th general meeting, New York city, April 3-5. Iron Age 103:945-6 Ap 10 '19; Chem & Met Eng 20:379-89 Ap 15 '19
- 35th general meeting, New York city, April 3-5. J. W. Richards. J Ind & Eng Chem 11:483-4 My '19
- 36th general meeting, Chicago, Sept. 23-26. Elec R 75:524 S 27 '19; Eng & Min J 108:557 S 27 '19
- American electroplaters' society**
Closer relations between employer and employee in the work of the American electroplaters' society. W. C. Gold. Metal Ind 17:313-15 JI '19
- Convention; a description of the metal plating and finishing shops of Philadelphia. G. Goodfellow. Metal Ind 17:257-65 Je '19
- 5th annual convention, St. Louis, July 5-7. R. M. Edmonds. Metal Ind 15:285-9 JI '17
- 6th annual meeting, Detroit, Mich., July 1-3, 1918. Metal Ind 16:301-7, 379 JI-Ag '18
- 7th annual convention, Philadelphia, July 1-3. L. J. Krom. Metal Ind 17:307-10 JI '19

American engineering standards committee

Engineering and industrial standardization.

C. A. Adams. Power 49:337 Mr 4 '19

Engineering standards committee proposes new constitution. Eng N 83:575-6 S 18 '19

Establishing American engineering standards. J Elec 43:164-5 Ag 15 '19; Same cond. Sci Am 121:157+ Ag 16 '19

New association plan. Elec W 73:857 Ap 26 '19

Organization. Eng & Min J 107:1091-2 Je 21 '19

Organization and procedure of A.E.S. committee explained. Elec Ry J 53:407 Mr 1 '19

Proposed constitution for standards committee. Eng N 81:76 J1 11 '18

Proposed reorganization; constitution. Mech Eng 41:638-9 J1 '19

Reorganization of the Engineering standards committee. E: B. Rosa. Eng N 82:861-2, 916-18 My 1-8 '19; Excerpts. Elec Ry J 53: 859-60 My 3 '19

Revision of constitution of organization now proposed to carry on the large work of the committee originally suggested. C. B. Le Page. Elec W 73:1233 Je 7 '19

Statement issued by the association outlining the scope of its proposed activities and stating its reasons why such an association is necessary. Power 49:930-1 Je 17 '19; Same. Elec R 74:1001-2 Je 14 '19; Same cond. Elec Ry J 53:1100 Je 7 '19; Excerpts. Elec W 73:1233 Je 7 '19; Excerpts. Eng N 82:1154 Je 12 '19; Excerpts. Iron Age 103: 1585 Je 12 '19; Excerpts. Mach 25:1072 J1 '19

American foundrymen's association

Convention, Philadelphia, Sept. 29-Oct. 3. G: B. Goodfellow. Metal Ind 17:405-12 S '19

Foundrymen's convention. R. T. Elmes. il plans Metal Ind 15:373-7, 417-28 S-O '17

Quaker city, American foundrymen's association's cradle. Iron Tr R 65:sup100-5 S 25 '19

23d annual convention, Milwaukee, Oct. 7-11. Iron Age 102:955-65 O 17 '18; Iron Tr R 63: 907-12 O 17 '18; Metal Ind 16:445-58 O '18; Foundry 46:501-11 N '18

24th annual convention, Philadelphia, Sept. 29-Oct. 3. Foundry 47:619-40, 717-25 S 15, O 15 '19; Iron Age 104:712, 833-48, 1074-7 S 11, 25, N 27 '19; Iron Tr R 65:821-4, 888, 989-94 S 25-O 9 '19; Metal Ind 17:477-81 N '19

War service committee. Iron Age 101:339 Ja 31 '18

American fuse manufacturers' association

Fuse-making contractors organize. Am Mach 48:599 Ap 4 '18

American gas association

Association to be organized June 6. Gas Age 41:423-4, 525-6 My 1, Je 1 '18

Carbonization committee report shows distinct trend of gas industry towards by-product oven. Am Gas Eng J 111:396-402+ O 25 '19

Consolidation of the technical and commercial societies of the gas industry. Gas Age 41:545-51 Je 15 '18

1st annual convention, New York city, October 13-18. Am Gas Eng J 111:341-4+ O 18 '19; Gas Age 44:371-82 N 1 '19

Manufacturers section of A.G.A. W. W. Barnes. chart Gas Age 43:326 Mr 15 '19

March conference of American gas association demonstrates complete welding of interests of the two former national associations, New York. Am Gas Eng J 110:249-50 Mr 22 '19; Gas Age 43:301-2 Mr 15 '19

New association launched, June 6. Am Gas Eng J 108:549-50 Je 8 '18

Policy of the association. G: B. Cortelyou. Gas Age 41:551 Je 15 '18

Program for 1919. Gas Age 43:29-30 Ja 1 '19

Report of industrial fuel committee. Am Gas Eng J 110:203-4 Mr 1 '19

Scope of the advertising section of the American gas association. Am Gas Eng J 111: 377-8 O 18 '19

Secretary of American gas association should be a man well versed in the theory and practice of gas manufacture and use. Am Gas Eng J 111:54-5 J1 19 '19

American gas institute (now American gas association)

Plans for amalgamation of the American gas institute and the National commercial gas association rapidly approaching completion. Am Gas Eng J 108:235-6, 365-9 Mr 9, Ap 20 '18; Gas Age 41:423-4 My 1 '18

American gear manufacturers' association

Aims of the association. F. W. Sinram. Am Mach 50:885-6 My 8 '19

Annual meeting, Cleveland, April 14-16. Iron Age 103:1083-5 Ap 24 '19; Am Mach 50:872 My 1 '19; Mach 25:810-11 My '19

Gear makers adopt standard contract and set design standards for composition and bevel gears. Automotive Ind 41:830-1+ O 23 '19

Gear makers hold successful meeting. P. M. Heldt. Automotive Ind 40:834-5 Ap 17 '19

2d annual meeting, White Sulphur Springs, W.Va., April 18-20. Iron Age 101:1080-3 Ap 25 '18; Elec R 72:761 My 4 '18

Semi-annual meeting, Syracuse, N.Y., Sept. 19-21. Iron Age 102:750-2 S 26 '18; Iron Tr R 63:730-1 S 26 '18; Automotive Ind 39:527-9 S 26 '18; Elec R 73:543 O 5 '18; Mach 25: 161-2 O '18

American hardwood manufacturers' association

Adoption of the principles to be embodied in the inspection rules to be drawn up and applied by the association. Am Lumberman 227:53 Ja 4 '19

1st annual convention. Am Lumberman 227:5: 36-42 D 21 '18

Hardwood associations to unite as one. Am Lumberman 226:7:35+ O 26 '18

Hardwood interests form new organization. Am Lumberman 228:40-2 Ja 26 '18; Iron Tr R 62:173 Ja 10 '18

New hardwood inspection rules drafted. Am Lumberman 228:50:57 Ja 25 '19

Semiannual meeting, Memphis, Tenn., May 25. Am Lumberman 224:6:54-6 Je 1 '18

American hide & leather company

Report for the fiscal year ended June 30, 1918. Ry Age 65:899-900 N 15 sec 2 '18

American institute of accountants

Annual meeting. J Account 26:296-9 O '18

Annual meeting, Cincinnati, Ohio, September 16-17. J Account 28:290-6 O '19

Board of examiners; November, 1917, examination questions. J Account 24:413-23 D '17; Answers. S. Walton and H. A. Finney. 25: 64-78, 140-8 Ja-F '18

Board of examiners; May, 1918, examinations. J Account 25:401-12 Je '18; Answers. S. Walton and H. A. Finney. 26:143-56, 222-33 Ag-S '18

American institute of architects

Address of president. J: L. Mauran. Am Arch 113:555-8 My 8 '18

Democratizing the institute. Am Arch 115: 515-16 Ap 9 '19

Federating the building industry. T: R. Kimball. Am Arch 113:719 My 29 '18

Fellows and fellowships. Am Inst Arch J 7: 51-9 F '19

51st annual convention, Philadelphia, April 24-26. Am Inst Arch J 6:190-8 Ap '18; Am Arch 113:551-64 My 8 '18

52nd annual convention, Nashville, Tenn., April 30-May 2. Am Arch 115:633-41, 647, 665-70 My 7-14 '19; Am Inst Arch J 7:192-8 My '19; Arch Forum 30:123-6 My '19

Illinois chapter A. I. A. elects new officers; Geo. W. Maher succeeds D. H. Burnham as president. Am Arch 114:403-4 O 2 '18

National organization. Am Arch 112:431-2 D 12 '17; Discussion. 113:42-3, 89-91, 119-20, 155-8, 471-6, 717-18 Ja 9, 23-F 6, Ap 17, My 29 '18

National organization of architects; a defense. R. C. Sturgis. Am Arch 113:349-51 Mr 20 '18

Record of the Institute's war service. J: L. Mauran. Am Inst Arch J 5:641-3 D '17

Post-war committee

Inter-professional conference. Am Inst Arch J 7:493-4 N '19

Post-war committee on architectural practice. Am Inst Arch J 7:153-8 Ap '19

- American Institute of architects—Post-war committee—Continued**
 Post-war committee—some opinions. Am Inst Arch J 7:453-8 O '19
 Preliminary conclusions. C: H. Whitaker. Am Inst Arch J 7:390-5 S '19
 Review of the Post-war committee's activities at the Nashville convention. R. D. Kohn. Am Arch 115:735-8 My 28 '19
- American Institute of chemical engineers**
 10th annual meeting, St Louis, Dec. 5-8. Met & Chem Eng 17:634 D 15 '17; J Ind & Eng Chem 10:77-9 Ja '18
 10th semi-annual meeting, Gorham, N. H., June 19-22. Il Chem & Met Eng 19:4-8 Jl 1 '18; J Ind & Eng Chem 10:651-3 Ag '18
 11th annual meeting, Chicago, Jan. 15-18. Chem & Met Eng 20:115-18 F 1 '19; J Ind & Eng Chem 11:162-4 F '19
 11th semi-annual meeting, Boston and Cambridge, June 18-21. Chem & Met Eng 21:5-15 Jl 1 '19; J Ind & Eng Chem 11:789-91 Ag '19
- American Institute of electrical engineers**
 A. E. F. section. Elec R 73:252 Ag 17 '18
 A. I. E. E. development committee report. G: T. Southgate. Elec W 74:703 S 27 '19
 Annual reports of technical committees. Am Inst E E Pro 33:901-5 Jl '19
 Appointments to the A. I. E. E. committees. Elec W 74:373 Ag 16 '19
 Closing sessions of A. I. E. E. convention embrace many subjects. Elec R 75:67-9 Jl 12 '19
 Comments on proposed A. I. E. E. changes. Elec W 74:298-300, 354-7 Ag 9-16 '19
 Committee reports presented June, 1918. Am Inst E E Pro 37:935-76 Ag '18
 Committees for the year beginning August 1, 1918. Elec R 73:328 Ag 31 '18
 Enhancing the prestige of the Institute. C: P. Steinmetz. Elec W 74:243-6 Ag 2 '19
 How A. I. E. E. changes may lessen scientists' support. J. B. Whitehead. Elec W 74:577-8 S 13 '19
 How can A. I. E. E. increase its revenue? Elec W 74:522-3 S 6 '19
 Joint meeting with the Association of iron and steel electrical engineers, Cleveland, O., March 8. Elec R 72:457-8 Mr 16 '18; Elec W 71:580-1 Mr 16 '18
 Midwinter convention, New York, Feb. 19-21. Elec R 74:350-3 Mr 1 '19; Elec W 73:421-4 Mr 1 '19; Power 49:338-9 Mr 4 '19
 Proposed changes in A. I. E. E. activities. Elec W 74:241-2 Ag 2 '19; Same abr. Power 50:276-7 Ag 12 '19
 Proposed changes in A. I. E. E. activities; issuing of engineering periodical instead of proceedings. Elec W 74:18-19 Jl 5 '19
 Report of committee on development, A. I. E. E. Elec W 74:374-6 Ag 16 '19; Same abr. Am Inst E E Pro 38:337-46 S '19 [sec 1]; Same cond. Elec R 75:322-4 Ag 23 '19; Excerpts. J Elec 43:231-2 S 1 '19
 Report of the board of directors for fiscal year ending April 30, 1918. Am Inst E E Pro 37:717-38 Je '18
 Shall Institute practices be amended? Elec W 74:466-7 Ag 30 '19
 6th annual midwinter convention, New York, Feb. 15-16. Elec R 72:342-3 F 23 '18; Elec Ry J 51:373 F 23 '18; Elec W 71:424-5 F 23 '18; Power 47:312 F 26 '18
- 34th annual business meeting, New York city, May 17. Elec R 72:873 My 25 '18; Am Inst E E Pro 37:sup186 Je '18**
- 34th annual convention; abstracts of papers. Il diags Elec R 72:1080-3 Je 29 '18; Elec Ry J 51:1229-31 Je 29 '18**
- 34th annual convention, Atlantic City, N. J., June 26-28. Elec R 72:1086-9; 73:14-17 Je 29-31 '18; Elec W 71:1374-5; 72:28-31 Je 29-Jl 6 '18; Power 48:66-8 Jl 9 '18; Munic J 45: 61-+ Jl 20 '18; Am Inst E E Pro 37:sup239-44 Ag '18**
- 35th annual convention, Lake Placid, New York, June 24-27. Elec R 75:7-12 Jl 5 '19; Elec W 73:1383-90; 74:16-17 Je 28-Jl 5 '19; Power 50:39-40 Jl 1 '19**
- 335th meeting, New York, Dec. 14; with abstracts of papers. Elec W 70:1208 D 22 '17**
- 342nd meeting, Philadelphia, Dec. 13. Elec R 73:972-4 D 21 '18**
- 348th meeting, Boston, March 14. Elec W 73: 592-5 Mr 22 '19**
- What are the important functions of the A. I. E. E.? W: Arthur. Elec W 74:410-11 Ag 23 '19**
- American Institute of metals**
 Foundrymen's convention. R. T. Elmes. Il plans Metal Ind 15:373-7, 417-28 S-O '17
 Sessions of the Institute of metals. Iron Age 103:566-7 F 27 '19
 To join the American Institute of mining engineers. Metal Ind 16:223-4 My '18; Abstract. Iron Tr R 62:1052 Ap 25 '18
- American Institute of mining and metallurgical engineers (formerly American Institute of mining engineers)**
 Address of president to local sections. S. J. Jennings. Am Inst Min E Bul 137:sup8-13 My '18
 American Institute of metals to join the American Institute of mining engineers. Metal Ind 16:223-4 My '18; Abstract. Iron Tr R 62:1052 Ap 25 '18
 A. I. M. E. in Colorado. Eng & Min J 106:377 Ag 31 '18
 Annual meeting of the Institute of metals division, Philadelphia, Sept. 29-Oct. 3. Foundry 47:619-24, 744-5 S 15, O 15 '19; Iron Tr R 65:821-4 S 25 '19; Chem & Met Eng 21: 550-6 O 29 '19
 Board of directors, A. I. M. E.; portraits. Eng & Min J 108:469-71 S 13 '19
 Board of directors; portraits. Eng & Min J 106:378-80 Ag 31 '18
 Coal has leading place in session of A. I. M. E. R. D. Hall. Coal Age 16:606-10 O 9 '19
 Consider industrial relations; remarks on meeting of A. I. M. E. R. D. Hall. Coal Age 13:413-14, 458-9, 499-500, 544-5 Mr 2-23 '18
 Institute and the war. B. Stoughton. Il Eng & Min J 106:375-7 Ag 31 '18
 Meeting of the San Francisco section, July 22. Eng & Min J 108:193 Ag 2 '19
 Milwaukee meeting, Oct. 7-12. J. W. Richards. J Ind & Eng Chem 10:945-6 N '18
 Officers of mining engineering societies. Eng & Min J 107:486-8 Mr 15 '19
- 116th annual meeting, New York, Feb. 18-21. Iron Age 101:554-9 F 28 '18; Iron Tr R 62: 549-52 F 28 '18; Eng & Min J 105:391-2, 426-9 F 23-Mr 2 '18; Met & Chem Eng 18:227-31 Mr 1 '18**
- 117th meeting, Denver and Colorado Springs, Sept. 2-5. Chem & Met Eng 19: 278-86 S 15 '18; Eng & Min J 106:501 S 14 '18; Am Soc M E J 40:858 O '18**
- 118th meeting of the Institute of metals division, Milwaukee, Oct. 8. Foundry 46:530-1 N '18**
- 119th annual meeting, New York, Feb. 17-20. Chem & Met Eng 20:208-15 Mr 1 '19; Eng & Min J 107:373-4, 414-15 F 22-Mr 1 '19; Iron Age 103:563-6 F 27 '19; Iron Tr R 64:578-9 F 27 '19; Metal Ind 17:111-12 Mr '19**
- 120th meeting, Chicago, Sept. 22-26. Eng & Min J 108:328-9, 364-6, 555 Ag 23-30, S 27 '19; Chem & Met Eng 21:458-61 O 8 '19; Iron Tr R 65:900-1 O 2 '19; Iron Age 104:1058-61 N 27 '19; Metal Ind 17:477-81 N '19**
- Reports for the year 1917. Am Inst Min E Bul 134:sup9-24 F '18**
- Session on milling and industrial organization, Chicago, September 22. Eng & Min J 108:588 O 4 '19**
- Some facts and figures about the A. I. M. E. Il Eng & Min J 108:433-9 S 13 '19**
- 23d annual convention, Milwaukee, Oct. 7-11. Iron Age 102:955-65 O 17 '18; Metal Ind 16: 445-58 O '18; Foundry 46:501-11 N '18**
- American Iron and steel Institute**
 New committee for scrap. Iron Age 101:360 Ja 31 '18
 New members. Iron Age 101:1532 Je 13 '18
 16th general meeting, New York city, Oct. 24. Iron Tr R 65:1194-6 O 30 '19
 Stricter control over ferro alloys; Institute to act as clearing agent. Iron Tr R 62:439-40 F 14 '18
 War writes steel's brightest page. E. C. Kreutzberg. Iron Tr R 64:42-51 Ja 2 '19

American iron, steel and heavy hardware association

Annual convention, Atlantic City, N.J. Iron Age 101:1394-6 My 30 '18

American locomotive company

Annual report for fiscal year ended June 30, 1918. Ry Age 65:897 N 15 sec 2 '18

American lumber congress

American lumber congress considers the industry's problems. Am Lumberman 2292: 56-64 Ap 19 '19

Proceedings. Am Lumberman 2292:1, 47-67 Ap 19 '19

American machinist (periodical)

Anent our fortieth birthday. W. D. Forbes. Am Mach 48:20-1 Ja 3 '18

Value of the American machinist as a college textbook. J. A. De Turk. Am Mach 48:531-2 Mr 28 '18

American manufacturers export association

Exporters in drive for world trade. Iron Tr R 63:1078-9 N 7 '18

10th annual convention, New York, Oct. 16-17. Ry Age 67:701-2 O 3 '19

American metric association

2d meeting, Pittsburgh, Pa., Dec. 28-29, 1917. J Ind & Eng Chem 10:154 F '18

American mining congress

American mining congress. B. Wells. Eng & Min J 107:489-90 Mr 15 '19

American oak manufacturers' association. See American hardwood manufacturers' association**American paper and pulp association**

Paper associations joint convention, New York, Feb. 3-6. Chem & Met Eng 20:184-5 F 15 '19

American petroleum institute

Natural gas and petroleum wartime activities. C. C. Smith. Gas Age 44:90-2 Ag 1 '19

American photoengravers' association

23d annual convention, Buffalo, June 19-21. S. H. Horgan. Inland Ptr 63:415-16 Jl '19

American pig iron association

Annual meeting, Pittsburgh, Feb. 7. Iron Age 101:472 F 14 '18

American railroad association

Atlantic City conventions. Ry Mech Eng 93: 185-7 Ap '19

Developments in American railroad association. Ry Age 66:541-2 Mr 7 '19

New section of American railroad association; superseding the American storekeepers' association. Ry Mech Eng 93:296 Je '19

Personnel of general committees. Ry R 64: 400 Mr 15 '19

Reorganization of the American railway association taking in several auxiliary associations. Ry Age 66:194-6 Ja 17 '19; Same. Ry R 64:86-9 Ja 18 '19

Mechanical section

1st annual meeting, Atlantic City, June 18-25. Elec Ry J 53:1213-16, 1268-70 Je 21-28 '19; Ry R 64:922-5+, 977-85, 994-1000 Je 21-28 '19

Mechanical section of American railroad association; rules of order. Ry Age 66:535-7 Mr 7 '19; Ry R 64:345-6 Mr 8 '19

Signal division

(formerly Railway signal association)

1st annual meeting, Chicago, Sept. 17-19. Ry Age 67:613-16 S 26 '19; Ry R 65:429-30, 450 S 20-27 '19

Meeting, Atlantic City, June 26-27. Ry Age 67:31-4 Jl 4 '19

Spring meeting of signal division, Chicago, March 17. Ry R 64:433-4 Mr 22 '19

Telegraph and telephone division

Convention of the telegraph superintendents consider mailgram service, wire crossings and pole line construction. Ry Age 66:1542-4 Je 20 '19

American railway accounting officers, Association of. See Association of American railway accounting officers

American railway association. See American railroad association

American railway bridge and building association

28th annual convention, Chicago, Oct. 15-17. Ry Age 65:705-13 O 18 '18; Ry R 63:559-61 O 19 '18

29th annual convention, Cleveland, Oct. 21-23. Ry R 65:609-10 O 25 '19

American railway commission

American railway commission in Russia. J. E. Greiner. Ry R 63:170-2 Ag 3 '18; Same cond. Eng & Contr 50:56-8 Jl 17 '18

American railway engineering association

Brief summarization of reports submitted to 19th annual convention. Eng N 80:547-50 Mr 21 '18; Elec Ry J 51:565-7, 618 Mr 23-30 '18

Committee work. Ry Age 66:949 Ap 11 '19

19th annual convention, Chicago, March 19-21. Ry R 62:417-25 Mr 23 '18; Eng N 80:632 Mr 28 '18

President's address. C. A. Morse. Ry R 64: 440-3 Mr 22 '19

President's address. J. G. Sullivan. Ry R 62: 437-9 Mr 23 '18

Recommendations of fourteen committees adopted. Eng N 80:606 Mr 28 '18

20th annual convention, Chicago, March 18-20. Elec Ry J 53:649-51 Mr 29 '19; Eng N 82: 606-9 Mr 27 '19; Ry R 64:435-40, 446-8 Mr 22 '19; Iron Age 103:819 Mr 27 '19

American railway express company

Express company taken over and rates raised. Ry Age 65:924-5 N 22 '18

Four express companies to be consolidated. Ry Age 64:1377-82 Je 7 '18

Outline of government's scheme of organization for handling express business during the war. E. A. Stedman. Ry R 63:531-3 O 12 '18

American railway master mechanics' association (now American railroad association—Mechanical section)

Joint meeting with the Master car builders' association, Chicago, June 19-20. Ry Age 64:1514-32 Je 21 '18; Ry R 62:938-51 Je 29 '18

Past and future of the mechanical associations. W. Schlafke. Ry R 62:904-6 Je 22 '18; Same cond. Ry Age 64:1515-16 Je 21 '18

American railway tool foremen's association

9th convention, Chicago, Aug. 27-29. Ry R 65:315-16 Ag 30 '19; Ry Age 67:471-2 S 5 '19; Ry Mech Eng 93:613-16 O '19

American red cross. See Red cross**American relief administration. See United States—American relief administration****American road builders' association**

15th annual convention, St Louis, Feb. 4-7. Good Roads n s 15:75-8+ F 9 '18; Munic J 44:129-30 F 16 '18

History, aims and officers of the national organization. Good Roads n s 17:79-83 F 22 '19

History of the association and the St Louis convention program. Good Roads n s 15:65-9 F 2 '18

Proposed changes in constitution. Good Roads n s 16:36 Jl 27 '18

16th annual convention, New York city, Feb. 25-28. Good Roads n s 17:95-7, 105-8 Mr 1-8 '19; Munic J 46:197-200 Mr 8 '19

American short line railroad association

Convention, Washington, D. C., June 3-5. Ry Age 66:1377-80 Je 6 '19; Elec Ry J 53:1172 Je 14 '19

American smelting and refining company

Report for the fiscal year ended Dec. 31, 1917. Eng & Min J 105:682 Ap 13 '18

American society for municipal improvements

Reports at the 24th annual convention. Good Roads n s 16:140-2+ O 12 '18

24th convention, Buffalo, N.Y., Oct. 2-5. Munic J 45:277-80 O 12 '18

American society for testing materials

21st annual meeting, Atlantic City, June 25-28, Iron Age 102:14-18 J1 4 '18; Eng N 81:56 J1 4 '18; Iron Tr R 63:33 J1 4 '18; Ry Age 65:27-30 J1 5 '18; Power 48:68-9 J1 9 '18; Munic J 45:61 J1 20 '18

22d annual meeting, Atlantic City, N. J., June 24-27, Am Arch 116:53-6 J1 9 '19; Elec Ry J 54:24-5 J1 5 '19; Eng N 83:9-14 J1 3 '19; Foundry 47:460-1 J1 15 '19; Iron Age 103:1748-a Je 26 '19; Ry Age 67:16-20 J1 4 '19; Arch Forum 31:52-3 Ag '19

American society of agricultural engineers

11th annual meeting, Chicago, Dec. 27-29, 1917. Eng N 80:52 Ja 3 '18

American society of civil engineers

Annual meeting, Jan. 15. Eng N 82:160-1 Ja 16 '19

Committee on development. Eng N 80:1209-10; 81:239-41 Je 27, Ag 1 '18; Resolutions. Am Soc M E J 40:712 Ag '18; Eng & Contr 50:49 J1 17 '18

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 Charts show size and span of sheeting at a glance. S. M. Cotten. *Eng N 81:376 Ag 22 '18*
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- Calcium chloride in concrete in cold weather. Concrete 11:184-5 D 17
- Cement mortars and magnesium chloride. J Ind & Eng Chem 10:746 S '18
- Cold weather concreting. J: Hammersley-Heenan. Eng & Contr 50:133 J1 31 '18
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- Heating concrete materials. J. A. Hedlund. diags Concrete 12:54 F '18; Same. Eng & Contr 49:387 Ap 17 '18
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- Concrete machinery on the William Penn highway. il Munic J 45:266-7 O 5 '18
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- Distribution of concrete by inclined chutes. il diags Engineer 128:245-7, 256, 284-6, 300-1, 306 S 12-26 '19
- Handling materials in construction of New York hotels. il diag plan Eng N 83:222-3 J1 31 '19
- Labor-saving equipment for handling concrete materials. il Eng & Contr 51:496 My 7 '19
- Motor trucks deliver mixed concrete three-fourths of a mile. il plan Eng N 81:1000-1 N 28 '18
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- Erect 66 sea shore cottages of concrete. il diags plans Concrete 15:51-4 Ag '19
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- My own house—how it was built. C. D. Gilbert. il plans Concrete 12:10-15 Ja '18
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- Reinforced-concrete house built without forms. il diags plan Eng N 81:1043-4 D 5 '18
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- Carburetor on concrete mixer. il Munic J 44: 157 F 16 '18
- Concrete mixer suited for manhole and conduit work. Elec R 72:1055-6 Je 22 '18
- Concrete mixer uses either gasoline or kerosene as fuel. il Eng & Contr 49:443 My 1 '18
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- Knife-edge grit shield on top of hopper gate prevents trouble. J. H. Sawkins. diag plan Eng N 80:281 F 7 '18
- Koehring portable mixer loader that cuts out loading delays and reduces labor costs. il Eng & Contr 49:443 My 1 '18; Concrete 12: 188 My '18; Munic Eng 54:254-5 Je '18
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H. G. McLean. il diags Am Mach 48:211 Ja
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Boring a hole around a corner. G. A. Mac-
Gregor. diags Am Mach 48:328 F 21 '18

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Kropidowski. diags Ry R 62:276-7 F 23 '18

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R. P. Deane. diags Am Mach 51:304 Ag
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Rowell. Mach 26:241 N '19

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Curry. diags Mach 24:542 F '18

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E. K. Hammond. il diags Mach 24:914-21,
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Jennings. diags Am Mach 48:249 F 7 '18

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chine. il Am Mach 50:867-8 My 1 '19

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Stiles. il diags Am Mach 50:951-2 My 15
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C. C. Spreen. diags Mach 24:741-2 Ap '18

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- Defiance no. 23 high power multiple spindle rail drill. *il* Ry Mech Eng 93:358-9 Je '19; Iron Age 103:1450 My 29 '19
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- Drill grinding. E. K. Hammond. *il* chart diags Mach 24:825-30 My '18
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- Resuscitation from electric shock. il Gen Elec R 22:487 Je '19

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- Canada rushing huge Niagara development as war conservation measure. il diags plan map Eng N 81:801-5 O 31 '18
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- Anaconda company's bell and buzzer signal system. R. H. Richards. *diags* Eng & Min J 106:453 S 7 '18
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 Circuit-breaker signal for hand-operated board. L. E. Wood. *il* diag Elec W 70:1103-4 D 8 '17
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- Observations on current discharge across gap. C. R. Behringer. *Power* 48:463 S 24 '18
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- Collection of data on telephone interference factor. *Am Inst E E Pro* 38:59-61 F '19
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- Modern outdoor substation. M. M. Samuels. il diags plans Elec W 72:1068-73 D 7 '18
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- Outdoor mine substation with brick meter housing. il Elec W 73:640 Mr 29 '19
- Outdoor mine substations. H. W. Young. diag Coal Age 14:891 N 14 '18
- Outdoor station solves high-water problems. il Elec W 72:938 N 16 '18
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- Outdoor substation for supplying power to a coal mine. H. W. Young. il Coal Age 16:307 Ag 21 '19
- Outdoor substation in war service. E. B. Meyer. il diags plan Elec W 72:537-41 S 21 '18
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- Outdoor substations for intercounty development. il diags plans map Elec W 73:884-7 My 3 '19
- Outdoor substations in connection with coal-mining installations. H. W. Young. il diags Am Inst Min Bul 153:1883-94 S '19; Same. Coal Age 16:712-16 O 30 '19; Same. Elec R 75:595-8 O 11 '19
- Permanence in outdoor substations. S. B. Hood. il diags Elec W 72:928-30 N 16 '18
- Power generation. A. B. Stitzer. charts Elec Ry J 54:sup72-6 O 11 '19
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- Some elements in a satisfactory substation building. C. F. Lloyd. il diags plans Elec Ry J 54:832-4 N 1 '19
- Standard outdoor substation. J. T. Bronson. il diags Gen Elec R 21:640-51 S '18
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- Substation equipment for St Paul's new electrification. Elec Ry J 51:1198 Je 22 '18
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- Substation operation a woman's job. H. J. Burton. il Elec W 73:30-2 Ja 4 '19
- Substation operators trained in fifteen days. il Elec Ry J 53:919-20 My 10 '19
- Substation renders the power system flexible. Elec Ry J 52:447 S 14 '18
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- Substation withstands floods periodically. P. C. Petersen. il Elec W 73:846 Ap 26 '19
- Substations designed to permit future changes. il Elec W 74:874-5 O 25 '19
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- Distribution of cost in outdoor substations. H. W. Young. diags Elec W 73:1393 Je 28 '19
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- Automatic re-closing device for automatic substations. B. F. Pearson. il diag Elec R 72:731-2 Ap 27 '18
- Automatic substation. C. Dorticos. Elec Ry J 52:157-8 JI 27 '18
- Automatic substation from an economic standpoint. il Elec R 75:104-5 JI 19 '19
- Automatic substation has come to stay. W. C. Slade. Elec Ry J 52:651-4 O 12 '18
- Automatic substation of new type on Ohio electric railway. R. J. Wensley. il diag Elec Ry J 51:707-9 Ap 13 '18
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- Railway automatic sub-station at Torrance. il J Elec 43:470 N 15 '19
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- Simplified diagram of automatic substation circuits. Aurora, Elgin & Chicago railroad. Elec Ry J 53:104 Ja 11 '19
- Simplifying the automatic substation circuit diagram. diags Elec Ry J 52:979 N 30 '18
- Sources of economy in automatic substation control. C. F. Lloyd. Elec Ry J 53:922-3 My 10 '19
- Space saved by double-deck arrangement in automatic substation. diags Elec Ry J 52:118-19 JI 20 '18
- Standard automatic substation equipment. R. J. Wensley. il diag Elec J 16:218-22 My '19
- Two-unit automatic substation. W. C. Slade. il diags plan map Elec Ry J 52:1038-44 D 14 '18
- Why the automatic substation saves materials and labor. C. F. Lloyd. il Elec Ry J 51:705-6 Ap 13 '18
- Year of the automatic substation at Butte. E. J. Nash. il diags Elec Ry J 53:565-7 Mr 22 '19; Same. Gen Elec R 22:552-5 JI '19

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- Portable substation for serving emergency loads equipped by Portland (Ore.) railway, light & power company. il Elec W 71:726 Ap 6 '18
- Portable substation serves sudden load increase. F. B. Lewis. Elec W 74:77 JI 12 '19
- Semi-automatic portable substation built at St Louis. il diags Elec Ry J 52:1051-2 D 14 '18

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 - Automatic knife switch. il Elec W 71:490 Mr 2 '18; Elec R 72:438 Mr 9 '18
 - Automatic moment switches for porch and hall lights. diag Elec R 72:209 F 2 '18
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 - Automatic track switches release men for other work. R. C. Cram. il diags Elec Ry J 52:686-93 O 19 '18
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 - Concrete brick for high-tension cells. E. B. Meyer. il Elec W 72:977-8 N 23 '18
 - Crouse-Hinds safety-first switches. il Textile World 53:4043 Mr 2 '18
 - C-H inclosed float switch. il Elec R 72:488 Mr 16 '18
 - Developments in oil switches for remote control of outdoor lighting circuits. il Elec R 75:370 Ag 30 '19
 - Developments in the electrical industry during 1918. J. Liston. il diags Gen Elec R 22:33-40 Ja '19
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 - European high-voltage switchgear. W. A. Coates. il Elec J 16:243-8 Je '19
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 - Frequent causes of oil-switch troubles. F. A. Allner and A. Bauhan. Elec W 73:1393 Je 28 '19
 - G. E. back-of-board type field switches. il Elec Ry J 50:1085 D 15 '17; Elec R 73:342 Ag 31 '18
 - G. E. combined fuse and disconnecting switch for outdoor service. il Elec R 72:740-1 Ap 27 '18; Elec W 71:907 Ap 27 '18
 - G. E. improved safety-first inclosed-lever switch. il Elec W 70:1225 D 22 '17; Eng & Min J 104:1049 D 15 '17; Metal Ind 15:497 N '17
 - G. E. low-tension dead-front switch panel. il Elec R 72:1098-9 Je 29 '18; Iron Tr R 63:263 Ag 1 '18
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 - Inexpensive voltmeter switch. J. J. Nolan. diag plan Power 50:73 J1 8 '19; Same. Coal Age 16:350-1 Ag 28 '19
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 - New vertical-break horn-gap switch. il Elec R 73:871 N 30 '18
 - Oil switch for slip-ring motors. il Iron Tr R 64:771 Mr 20 '19; Iron Age 103:825 Mr 27 '19
 - Opinion on high-tension switching and protection. Elec W 72:353-4 Ag 24 '18
 - Paragon time switches. il Elec R 72:781 My 4 '18
 - Points to consider in the design of terminals. F. Bechoff. diags Elec W 71:256-7 F 2 '18
 - Safety features in switching apparatus. M. M. Samuels and F. N. Bechoff. diags Elec W 71:656-9, 1075-8; 72:878-80 Mr 30, My 25, N 9 '18
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 - Tests on oil switches; abstract. C. C. Garrard. Elec W 71:1220 Je 8 '18
 - Time-limit overload protective plugs for motor switch. il Elec R 73:906-7 D 7 '18
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 - Use of three-way switches reduces current consumption. diag Elec R 74:276-7 F 15 '19
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 - Artificial load for testing. il Elec W 71:646 Mr 23 '18
 - Circuits tested with telephone receivers. H. S. Rich. diag Elec W 74:530 S 6 '19
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 - Curing electric troubles. il diag plan Motor Age 35:22-4 Mr 20 '19
 - Esterline duplex indicating instruments. il Elec R 73:711-12 N 2 '18
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Electric crane tractor. il Sci Am 119:318 O 19 '18

Electric tractors and trucks in freight house service. il Ry R 62:245-54 F 16 '18

Electric tractors in government service. Elec R 72:1013 Je 15 '18

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Making the electric industrial tractor more efficient. G. A. Hughes and R. H. Pool. il diags Elec R 74:382-3 Mr 8 '19

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Milwaukee foundries serve all industry. D. M. Avey. il Iron Tr R 63:sup109-15 O 3 '18

Model metal foundry for the Silvel metal manufacturing company of New York. il plan Metal Ind 15:173-5 Ap '17

Modern coreroom for malleable foundry, Rochester, N.Y. D. S. Barrows. il diags plans Iron Age 102:1254-5 N 21 '18; Same. Foundry 46:577-84 D '18

Modern French foundry in suburbs of Paris. H. C. Estep. il Foundry 47:429-34 J1 1 '19

Modern gray-iron foundry in Utah. T. F. Jennings. il Foundry 47:587-9 S 1 '19

New plant of the W. A. Jones foundry & machine co. il plan Am Arch 113:810-12 Je 12 '18

New uses for industrial fuel gas. C. H. Kallstedt. Am Gas Eng J 108:261 Mr 16 '18; Same. Gas Age 41:318 Ap 1 '18

Old foundry replaced by new; Pratt & Letchworth co., Buffalo. il Iron Age 103:1563-7 Je 12 '19

Philadelphia as a foundry center. D. M. Avey. il Iron Tr R 65:sup121-6 S 25 '19

Problems in small foundry design. M. H. Potter. plan Foundry 47:550 Ag 15 '19

Quaker city is thriving workshop. il Foundry 47:625-32 S 15 '19

Rapid construction of new steel foundry. il Iron Age 102:327 O 3 '18

Saginaw malleable iron co.'s plant. il plan Iron Age 101:1191-5 My 9 '18

Scientists co-operate with British foundrymen. G. E. Wells. Foundry 47:195 Ap 15 '19

Seeing chemical plant apparatus made. il Chem & Met Eng 20:395-9 Ap 15 '19

Seek economy in repetition work. il Foundry 47:761-6 N 1 '19

Steel foundry opened in Wilkes-Barre, Pa. il plan Foundry 47:334-5 Je 1 '19; Same. Iron Tr R 64:1677-8 Je 26 '19

Unique features of an Illinois foundry. C. Lundberg. il plan Iron Age 102:1563-9 D 26 '18

Using the upstairs in a foundry. J. F. Ervin. il Iron Tr R 63:1173-5 N 21 '18; Same. Foundry 47:40-2 Ja '19

Where power transmission machinery is made; foundry of W. A. Jones co., Chicago. il plan Foundry 47:325-8 Je 1 '19

See also Brass foundries; Founders; Foundry management; Foundry practice; also other headings beginning Foundry

Accidents

Injuries from molten metal. C. C. Sherlock. Iron Age 102:1262-3 N 21 '18

Accounting

See Foundry accounting

Electric equipment

Electric oven used for baking cores. il Iron Age 100:652-3 S 20 '17; Same. Gen Elec R 21:146-8 F '18

Harnessing the electric furnace to the foundry. D. Walker. Foundry 46:9-11 Ja '18

See also Electric furnaces

Employees

Industrial training for foundry workers. H. E. Miles. Am Ind 20:40-1 N '19

Training women for record output. R. I. Clegg. il Iron Age 103:169-74 Ja 16 '19

Vocational training for foundry occupations. Dom Eng 89:355+ N 15 '19

Women employed in German foundries. K. Abeking. Foundry 46:99 Mr '18

See also Foundry management

Equipment and supplies

Air-operated malleable iron annealing oven charging truck. il Iron Tr R 63:667 S 19 '18

Audible signals in the foundry. V. Karapetoff. diags Iron Tr R 65:894-5 O 2 '19

Bucket loader for foundry sand mixer. il Iron Age 102:899 O 10 '18

Castings—as per sample. W. H. Parry. Metal Ind 16:219 My '18

Charging truck for malleable iron foundries. il Foundry 46:390 Ag '18

Cutting the cost of cupola charging with an electric elevating platform truck equipped with a beam scale. il Iron Age 100:1411 D 13 '17

Details of a coremaker's bench. G; W. Childs. diag plans Foundry 46:112a Mr '18

Exhibition at Milwaukee reveals war capacity of foundries. il Foundry 46:512-20 N '18

Exhibits show year's progress. il Iron Tr R 65:905-9 O 2 '19

Feeder head for ingot moulds. diag Engineer 125:369 Ap 26 '18

Flask arbor and jet bar for a circular flask. G; W. Childs and J. Rafferty. diags Foundry 46:404 S '18

Foundry and machine tool exhibition at the Philadelphia commercial museum. il Iron Age 104:841-8 S 25 '19; Iron Tr R 65:825-32 S 25 '19; Foundry 47:634-40+ S 15 '19

Foundry exhibition surpasses all. Foundry 47:726-34+ O 15 '19

Handling foundry jobs by crane. W. C. Briggs. il Iron Tr R 65:889-91 O 2 '19; Same. Foundry 47:735-7 O 15 '19

How to select suitable sand-blast equipment. H. D. Gates. il plan Foundry 46:539-45 N '18

Labor is saved by pouring device. il Foundry 47:519-20 Ag 1 '19; Same. Iron Tr R 65:637-8 S 4 '19

Machinery and supply exhibit. Iron Age 102:965-8 O 17 '18

Mechanical handling of foundry material. il Iron Age 104:870-2 S 25 '19

Method of mounting patterns in a double match. W. H. Albohn. il Foundry 47:402-3 Je 15 '19

Molten metal charging car. diags Iron Tr R 63:788 O 3 '18

Motor drive in a modern foundry. il Elec R 72:99-100 Ja 19 '18

Reclaiming core and molding sand. il Foundry 46:90-1 F '18

Reliable signal system. H. S. Rich. diag Power 49:907 Je 10 '19

Stripping plate device for small foundries. H. D. Davis. diags Foundry 46:495 O '18

What you will see at the Milwaukee exhibition; exhibitors and the products displayed. Foundry 46:484-90 O '18; Iron Age 102:817-21 O 3 '18; Iron Tr R 63:777-83, 845-9+ O 3-10 '18

See also Blowers; Brushes; Casting machines; Chaplets; Converters (foundry); Crucibles; Fire brick; Foundries—Electric equipment; Foundries—Safety devices and measures; Foundry ladles; Foundry machinery; Molding machines; Riddles; Sand, Foundry; Sand blast

Floors

Concrete mix vs. wooden blocks for foundry floors. J. V. Hunter. il diag Am Mach 48:227-8 F 7 '18

Heating and ventilation

Brass foundry with automatic ventilation. C. Vickers. il plan Foundry 46:568-74 D '18

Foundry utilizes waste heat from open hearth. il Foundry 47:387 Je 15 '19

Foundry ventilation. diags Iron Age 103:610 Mr 6 '19

Lighting

Better lighting of iron and steel mills and fabricating plants. F. H. Bernhard. il Elec R 73:841-5 N 30 '18

Management

See Foundry management

Foundries—Continued

Safety devices and measures

- All foundries need a safety program. M. F. Gartland. Foundry 47:748-9 O 15 '19
 Safety code prepared by joint committees of the American foundrymen's association and the National founders' association. Iron Age 101:684-5 Mr 14 '18
 Safety first for foundrymen. Sci Am S 86:9 J1 6 '18
 Safety in the foundry. diags Am Ind 19:supl-4 N '18
 Standards for brass and bronze foundries and metal-finishing processes. L. Erskine. Am Inst Min E Bul 146:263-75 F '19; Same. Metal Ind 17:113-17 Mr '19

Foundry (periodical)

- New foreign offices are established for the Foundry. Foundry 47:809-10 N 15 '19

Foundry accounting

- Applying the principles of cost engineering. R. S. Denham. Foundry 46:309+ J1 '18
 Compiling cost data in a naval steel foundry. W. S. Doxsey. Foundry 47:206-11 Ap 15 '19
 Cost-finding; some practical methods for brass, bronze and aluminum foundries. Metal Ind 15:112-14 Mr '17
 Cost system for a medium size foundry. D. O. Barrett. Iron Age 102:810-13 O 3 '18
 Foundry cost and accounting system. W. W. Bird. Am Soc M E J 40:370-3 My '18; Same. Foundry 46:256-8 Je '18; Discussion. Am Soc M E J 40:681-4 Ag '18
 Handling costs in a steel foundry. C. E. Lynn. Iron Tr R 65:1179-80 O 30 '19
 Handling factory costs. Factory 20:1202+; 22: 1252+ Je '18, Je '19
 Production cost and profit control in nonferrous foundries. W. G. Scott. Metal Ind 17: 417-20 S '19
 Relating expenses with factors of production. M. J. House. Foundry 46:308-9 J1 '18
 Simple foundry cost system. A. N. Petersen. Foundry 47:67-8 F '19

Foundry costs

- Electric furnace performance for alloys with high zinc content. il Elec R 74:814-15 My 17 '19
 Metal melting as practiced at the Royal mint, Birmingham, England. W. J. Hocking. Metal Ind 15:383-5 S '17; Abstract. Foundry 45:193 My '17

See also Foundry accounting

Foundry ladles

- Combination ladle and truck. il Iron Age 103:1356 My 22 '19
 New heaters for large and small ladles. il Iron Tr R 65:1120 O 23 '19
 Preventing accidents with ladles. M. H. Potter. Foundry 47:569-70 Ag 15 '19
 Self-contained ladle tilter. diags Iron Tr R 63:446-7 Ag 22 '18
 Skip-type ladle tilter. diag Iron Tr R 62:975 Ap 18 '18
 Using heat resisting cement for ladle linings. il Foundry 47:322 My 15 '19

Foundry machinery

- Equipment for iron, steel and brass foundries. il diag Foundry 46:498-9 O '18
 How to care for foundry equipment. G. L. Grimes. Foundry 47:771 N 1 '19
 Improving foundry sand mixtures. H. B. Hanley. il Iron Age 102:1146-8 N 7 '18; Same. Iron Tr R 63:891-4 O 17 '18; Same. Foundry 46:559-62 D '18
 Saving man power in the foundry. E. S. Carman. il diags Iron Tr R 63:827-33 O 10 '18
 Side surface grinder for heavy duty. il Iron Tr R 64:1227-8 My 8 '19
 Special rig aids foundry output. il Iron Tr R 65:769-73 S 18 '19; Same. Foundry 47:654-8 S 15 '19

Using a corebox machine on shallow work. W. Ballantine. diags Foundry 47:709 O 1 '19

Woodson universal sensitive core machine to aid output. il Foundry 46:338-9 J1 '18

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Exhibitions

- Exhibition at Milwaukee reveals war capacity of foundries. il Foundry 46:512-20 N '18
 Exhibits show year's progress. il Iron Tr R 65:905-9 O 2 '19
 Foundry and machine tool exhibition at the Philadelphia commercial museum. il Iron Age 104:841-8 S 25 '19; Iron Tr R 65:825-32 S 25 '19; Foundry 47:634-40+ S 15 '19
 Foundry exhibition surpasses all. Foundry 47: 726-34+ O 15 '19
 Machinery and supply exhibit at Milwaukee. Iron Age 102:965-8 O 17 '18
 What you will see at the Milwaukee exhibition; exhibitors and the products displayed. Foundry 46:484-90 O '18; Iron Age 102:817-21 O 3 '18; Iron Tr R 63:777-83, 845-9+ O 3-10 '18

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- Applying the premium plan to a pattern shop. D. M. Avey. diags Foundry 47:95-9 Mr '19
 Brass foundry core-making points. H. M. Lane. Metal Ind 15:436-7 O '17
 British foundries assign heavy tasks to women. il Foundry 46:69-70 F '18
 British foundries undergo change. H. C. Estep. il Iron Tr R 64:819-23 Mr 27 '19
 Departmental co-operation effects economies. J. Shaw. Foundry 46:83 F '18
 Economies in a malleable iron foundry. A. F. Conant. il plan Iron Age 104:859-61 S 25 '19
 Educational value of a scrap pile. H. Trap-hagen. Foundry 47:688-90 O 1 '19; Same cond. Iron Tr R 65:892-3 O 2 '19
 Efficiency methods triple foundry output. C. E. Wright. il chart Iron Age 104:849-55 S 25 '19
 Estimating the weights of castings rapidly. W. Hathaway. diags Foundry 46:210-12 My '18
 Following work through the plant. A. Mann. Foundry 47:742-3 O 15 '19
 Handling foundry jobs by crane. W. C. Briggs. il Iron Tr R 65:889-91 O 2 '19; Same. Foundry 47:735-7 O 15 '19
 Handling foundry workers. P. R. Ramp. Iron Age 101:326-7 Ja 31 '18
 How the engineer can save foundry labor. E. S. Carman. il diags Foundry 47:113-20 Mr '19
 Keeping record of iron in storage. D. C. Kickler. Foundry 47:538-9 Ag 15 '19
 Material expediting. J. C. Graf. Ind Management 57:143-4 F '19
 Modern methods applied to the foundry. W. R. Dean. chart diag Metal Ind 17:3-4, 69-70 Ja-F '19
 Organizing a foundry to obtain top production. P. R. Ramp. Foundry 47:8-13 Ja '19; Excerpts. Iron Age 102:1383-5 D 5 '18
 Pattern shop superintendent. P. R. Ramp. Iron Age 103:1132-3 My 1 '19
 Piecework rates for grinding gates and risers from steel castings. F. R. Zimmerman. Foundry 46:114 Mr '18
 Prime factors of foundry efficiency; scheduling of work and shop details. M. H. Potter. Metal Ind 17:462-3 O '19
 Production cost and profit control in nonferrous foundries. W. G. Scott. Metal Ind 17: 417-20 S '19
 Sales engineer views the foundry. Iron Tr R 62:723-4 Mr 21 '18
 Short cuts keeping track of castings and patterns. Factory 23:652+ S '19
 Simple pattern control and routing system. il Foundry 47:292-6 My 15 '19
 System in the steel foundry. J. C. Graf. Ind Management 57:468-9 Je '19
 Time studies on grey iron molding. C. A. Marston. il Ind Management 57:198-202+ Mr '19
 Using the upstairs in a foundry. J. F. Ervin. il Iron Tr R 63:1173-5 N 21 '18; Same. Foundry 47:40-2 Ja '19
 What proper routing did for an old foundry. H. E. Goetz. plans Foundry 46:40-1+ Ja '18
 Why expert foundry advice sometimes fails. R. R. Clarke. Foundry 47:229-31 Ap 15 '19
 Why some foundries continue to lose money. R. Grimshaw. Foundry 46:562-3 D '18

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Win-the-war methods at the Essington foundry. E. C. Kreutzberg. *il Foundry* 46:293-301+ *Jl* '18; Same. *Iron Tr R* 63:201-8 *Jl* 25 '18

Your biggest foundry problem—manpower. H. C. Estep. *il Foundry* 46:443-50 *O* '18

See also **Foundries**—Safety devices and measures; Foundry accounting; Foundry practice; Foundry sanitation

Foundry practice

Accuracy in setting cores. J. V. Hunter. *il diags Am Mach* 49:439-40 *S* 5 '18; Abstract. *Am Soc M E J* 40:860-1 *O* '18

Air-tight castings. *Mach* 24:728 *Ap* '18

American and foreign steel foundries; a British comparison of French, Belgian and American steel castings. E. F. Lange. *Iron Age* 102:808-9 *O* 3 '18

Anthraccite coal for melting iron in a cupola. W. J. Keep. *Foundry* 46:325 *Jl* '18

Application of pyrometers to core ovens. G. W. Keller. *il Foundry* 47:72-4 *F* '19

Attaining production on Liberty motor crankcase castings. *il diags Foundry* 47:126-9 *Mr* '19

Australian steel foundry practice. A. M. Henderson. *Iron Tr R* 62:212-13 *Ja* 17 '18

Auxiliary cope flask. M. E. Duggan. *diags Am Mach* 48:589 *Ap* 4 '18

Birdsboro steel foundry. *il diags Iron Tr R* 63:313-21 *Ag* 8 '18

Brass foundry practice. W. R. Dean. *diag Metal Ind* 15:195-6, 388-9 *My*, *S* '17

Cast-steel anchor chain developed to meet war need; abstracts. H. J. Cox. *Eng N* 81:129-30 *Jl* 18 '18; *Iron Age* 102:25-6 *Jl* 4 '18

Castings a chromium-nickel alloy successfully. *Foundry* 46:470 *O* '18

Castings a slide valve locomotive cylinder. R. H. Palmer. *il diags Foundry* 46:276-9 *Je* '18

Castings a water-jacket ring. M. E. Duggan. *diags Am Mach* 49:33 *Jl* 4 '18

Castings bearings in sand and metal moulds. R. K. Clarke. *Metal Ind* 15:485-7, 516-17 *N-D* '17

Castings gray-iron piston rings by machinery. E. Sheldon. *il diags Am Mach* 49:783-7 *O* 31 '18

Castings large guns in the early eighties. J. Goostray. *il diags Foundry* 46:6-8 *Ja* '18

Castings nickel-silver, a copper nickel-zinc alloy. R. V. Hutchinson. *diag Metal Ind* 17:13-14 *Ja* '19

Castings pipe centrifugally. *il diag Sci Am* 118:99+ *F* 2 '18

Castings pipe sections by continuous pouring. *il diags plan Foundry* 46:73-8 *F* '18

Castings steel anchors in a permanent mold. *diags Foundry* 47:112 *Mr* '19

Castings tools from an air-hardening steel. *il Foundry* 47:66-7 *F* '19

Castings under pressure. *Iron Age* 102:1138 *N* 7 '18

Chinese iron foundries. F. A. Foster. *il Am Mach* 51:345-52 *Ag* 21 '19

Clamping device for core plate; diagrams. *Foundry* 46:292a *Jl* '18

Compressor casting takes 31 cores. *il Foundry* 47:673-6 *O* 1 '19

Converted plow plant makes efficient foundry. *il diag plan Foundry* 47:27-34 *Ja* '19

Converting crucible furnace to gas. *diags plan Gas Age* 42:162 *Ag* 15 '18

Cooling of castings by electricity. *Sci Am* 119:298 *O* 12 '18

Core box construction. *diag Foundry* 46:34 *Ja* '18

Core work at the Nash foundry. M. E. Hoag. *il Am Mach* 48:22-4 *Ja* 3 '18

Crankcases for sub chaser engines are molded and cast. H. C. Estep. *il Foundry* 46:244-7 *Je* '18; Same. *Iron Tr R* 63:139-42 *Jl* 18 '18

Davidson process of casting formed tools. J. E. Johnson, jr. *il Am Inst Min E Bul* 146:353-60 *F* '19; Same cond. *Iron Tr R* 64:435-7 *F* 13 '19; Same cond. *Iron Age* 103:481-3 *F* 20 '19; Same cond. *Foundry* 47:162-4 *Ap* 1 '19; Abstract. *Mech Eng* 41:395-6 *Ap* '19

Difficult job molded in a single flask. M. E. Duggan. *diag Am Mach* 48:548 *Mr* 28 '18

Eastern plant makes ship castings. E. C. Kreutzberg. *il Foundry* 47:468-71 *Jl* 15 '19

Easy method for determining metal mixtures. H. L. Campbell. *Foundry* 47:130+ *Mr* '19

Efficiency in the core room. J. B. Conway. *diags plans Am Mach* 50:11-14 *Ja* 2 '19

Electric furnace in malleable foundry; National malleable castings co. F. L. Prentiss. *il plan Iron Age* 103:537-43 *F* 27 '19

Electric furnaces for steel foundries. W. E. Moore. *il diags plan Elec J* 16:360-6 *S* '19; Excerpts. *Mech Eng* 41:874-6 *N* '19

Electric heating of molds. H. E. White. *il diags Am Soc M E J* 40:388-9 *My* '18; Same. *Automotive Ind* 38:1207-8 *Je* 20 '18; Same. *Am Mach* 48:1109-11 *Je* 27 '18

Engineer in relation to the foundry. E. S. Carman. *il diags Iron Age* 102:1200-2 *N* 14 '18

Exceptional gang core boxes. J. V. Hunter. *il diags Am Mach* 49:377-80 *Ag* 29 '18

Experiments with cast steel chain; abstracts. C. K. Brooks. *diags Iron Age* 102:26-8 *Jl* 4 '18; *Eng N* 81:130 *Jl* 18 '18; *Iron Tr R* 63:23-32 *Jl* 4 '18; *Foundry* 46:374-5 *Ag* '18

Factors in selecting the proper core binder. W. G. Smith. *Foundry* 47:344 *Je* 1 '19

Foreign foundry practice analyzed. A. O. Backert. *Foundry* 47:769-70 *N* 1 '19

Foundrymen face new problems in war service. B. D. Fuller. *Foundry* 46:521 *N* '18

Gas fired ovens for baking and drying cores. B. Rahn. *il Foundry* 46:250-1 *Je* '18

Gating of metal castings. R. V. Hutchinson. *il diags Metal Ind* 16:495-7 *N* '18

Grinding wheel in the foundry. W. T. Montague. *Iron Age* 101:318-21 *Ja* 31 '18

Handling government work in a steel foundry. H. C. Estep. *il Foundry* 46:193-200 *My* '18; Same. *Iron Tr R* 62:1113-20 *My* 2 '18

Hispano-Suiza airplane engine. H. O. C. Isenberg. *il Am Mach* 51:55-8, 365-8, 515-19 *Jl* 10, *Ag* 21, *S* 11 '19

Hoosier foundry seeks difficulties. D. M. Avey. *il Foundry* 47:505-9 *Ag* 1 '19; Same. *Iron Tr R* 65:701-5 *S* 11 '19

How a large pump casing was molded and cast. *il Foundry* 47:281-3 *My* 15 '19

How cores are used to cut molding costs. *il Foundry* 46:1-4 *Ja* '18

How dummy iron shells are molded and cast. H. C. Estep. *il Foundry* 46:347-50 *Ag* '18; Same. *Iron Tr R* 63:659-62 *S* 19 '18

How gear cases for tractors are molded. *il diags Foundry* 47:2-5 *Ja* '19

How iron castings for big gun lathes are made. H. C. Estep. *il Foundry* 46:147-53 *Ap* '18; Same. *Iron Tr R* 62:1045-51 *Ap* 25 '18

How loam molds and cores are dried. E. Schwartz. *diags Foundry* 47:754-5+ *O* 15 '19

How one steel foundry met the need for ship and railway castings. H. C. Estep. *il diags plan Foundry* 46:415-23 *S* '18

How propeller castings are made. R. H. Palmer. *il diags Iron Tr R* 63:711-13 *S* 26 '18

How semisteel shells are being made in France. E. Ronceray. *Foundry* 46:93-6 *Mr* '18

How the engineer stops foundry losses. S. B. Phelps. *diags Ind Management* 56:209-11 *S* '18

How the foundry aided the machine shop. J. J. McDonald. *diags Foundry* 47:392 *Je* 15 '19

How to cool castings to prevent distortion. M. H. Potter. *Foundry* 47:99-100 *Mr* '19

How to insure the soundness of castings. E. Touceda. *Iron Tr R* 63:841-2 *O* 10 '18

How water shut-off boxes are made. *il diag Foundry* 47:495-8 *Ag* 1 '19

Huge chain cable is now cast successfully. *il Foundry* 46:310-13 *Jl* '18

Inland plant sets record on marine engine castings. D. M. Avey. *il diags Foundry* 47:196-204 *Ap* 15 '19

Is casting cymbals a lost art? *diag Metal Ind* 17:129-30 *Mr* '19

Loam model for evaporator steam belt. *il Foundry* 47:811-16 *N* 15 '19

Long castings from short patterns. R. R. Clarke. *Foundry* 47:561-4 *Ag* 15 '19

Machine for calculating cupola mixtures. *il Foundry* 46:336-7 *Jl* '18

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- Making a large piston on emergency order. J. R. Anderson. *il diags Foundry* 47:270-1 My 1 '19
- Making castings for giant lathes. *il diags Foundry* 47:772-7 N 1 '19
- Making castings of uniform thickness from block patterns. H. J. Butler. *diags Foundry* 46:374a Ag '18
- Making castings used in ship construction. B. Shaw and J. Edgar. *diags plans Foundry* 47:297-300+, 336-9, 388-92, 417-20, 474-8, 523-7, 540-4, 597-600, 647-50, 705-8, 738-41, 785-8, 832-5, 870-3 My 15-D 1 '19
- Making core mixtures for steel castings. *il Foundry* 46:279 Je '18
- Making cores for small hollow parts. *diags Foundry* 46:134-5 Mr '18
- Making hand grenade castings for Uncle Sam. A. M. Jones. *il Foundry* 46:177-82 Ap '18
- Making malleable cast iron rifle grenades. *il diags plans Foundry* 46:47-56 F '18; Same. *Iron Tr R* 62:477-86 F 21 '18
- Making quad wheels in a tractor foundry. *il Foundry* 47:157-61 Ap 1 '19
- Making sand-cast forging ingots. W. L. Booth. *il Iron Age* 102:1139-40 N 7 '18
- Making semi-steel projectiles. *il diags Iron Age* 102:879-83 O 10 '18
- Malleable plant proves versatility adapted to the successful manufacture of cast-steel anchor chain. *il plan Iron Tr R* 64:623-9 Mr 6 '19; Same *abr. Foundry* 47:221-4 Ap 15 '19
- Manufacture and testing of cast steel chain cables; memorandum issued by Lloyd's register of shipping. *Engineer* 126:134-5 Ag 16 '18
- Manufacture of metal beds. F. A. Stanley. *il diags Am Mach* 49:427-31 S 5 '18
- Manufacture of nickel anodes. L. J. Krom. *il Metal Ind* 15:147-8 Ap '17
- Manufacture of semi-steel shells. *il diags Iron Age* 102:1317-21 N 28 '18
- Marine gasoline engine cylinders. R. H. Palmer. *il Foundry* 47:567-9 Ag 15 '19
- Melting cast iron in crucibles. *J Fr Inst* 185:858 Je '18
- Metal melting as practiced at the Royal mint, Birmingham, England. W. J. Hocking. *il diag plan Metal Ind* 15:348-9, 382-5 Ag-S '17; Same *cond. Foundry* 45:191-3 My '17; Abstract, with discussion. *Engineer* 123:311 Ap 6 '17
- Method of casting thin-section hollow articles. *diags Foundry* 47:38 F '19
- Molding a large casting. M. E. Duggan. *diag Am Mach* 50:352-3 F 20 '19
- Molding a propeller hub. C. A. Otto. *diags Am Mach* 48:802-3 My 9 '18
- Molding a superheater locomotive cylinder. R. H. Palmer. *il diags Foundry* 46:205-9 My '18
- Molding and casting bronze tablets. W. B. Jones. *Foundry* 46:329 J '18
- Molding and casting heavy steel anchor chain. *il Foundry* 47:141-7 Ap 1 '19
- Molding and casting ornamental bronze tablets. C. Vickers. *il Foundry* 46:216-17 My '18
- Molding machines facilitate the production of castings for tractors. *il Foundry* 46:230-3 My '18
- Molding shoes for caterpillar tractors. *il Iron Age* 103:119-20 Ja 9 '19
- Molding slag pots in dry sand. C. J. McMahon. *diags Foundry* 46:11, 33-4 Ja '18
- Mounting pattern on plates an aid to molding. R. R. Clarke. *diags Foundry* 46:451-4+ O '18
- New hot top for ingot molds. *diag Iron Age* 102:85 J '11 '18
- New method of molding trench-mortar shell. H. C. Estep. *il Foundry* 46:523-5 N '18
- New methods speed up foundry output; conveyor systems and green sand cores used in large production works. *il Iron Age* 104:763-6 S 18 '19
- New way to make castings of non-ferrous alloys. *Sci Am* 120:57 Ja 18 '19
- Novel method of drying cores in vacuum ovens. G. W. Merrefield. *diags Foundry* 47:268-9 My 1 '19
- Overcoming aluminum bronze difficulties. *Foundry* 46:534 N '18
- Overweight casting—its cause and remedy. R. R. Clarke. *il Foundry* 46:12-16 Ja '18
- Patternmaking and molding cast tooth gears. J. Nall. *il diags Foundry* 46:377-80 Ag '18
- Patterns and core boxes for gas engine beds. J. Horner. *diags plan Foundry* 46:100-3 Mr '18
- Paving the way for the guns; making tractor track links. *il Foundry* 47:104-9 Mr '19
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 Extinguishing and preventing oil and gas fires. C. P. Bowie. bibliog il diags U S Bur Mines Bul 170:1-45 '18; Abstract. Mech Eng 41:436-7 My '19

Gas fitting

- Gas company should have right to demand that piping be installed in such manner as to establish greatest factor of safety and convenience. E. H. Caughell. Am Gas Eng J 109:202-3 Ag 31 '18; Same. Gas Age 42:230-1 S 2 '18
 Installation of gas appliances. E. H. Caughell. Gas Age 42:230-1 S 2 '18
 Instructions for gas company fitters. G. Wehrle. Gas Age 41:14-16, 67-9, 119-21, 165-7, 213-17, 260-2, 312-14, 355-7, 400-3, 448,

Gas fitting—Continued

509-10; 42:15-18, 66-7, 108-11, 150-3, 201-5, 261-2, 305-6, 347-8, 382-4, 426-30, 477 Ja 1-D 2 '18

Gas fittings

Ordinance on gas fittings passed by Brockton (Mass.) council. Am Gas Eng J 108:528-9 Je 1 '18

Gas fixtures

Failure to install fixtures on a par with the furnishings a serious setback to gas lighting. J. E. Bullard. Am Gas Eng J 111:437-8 N 8 '19

Gas fixtures real property. Gas Age 43:417 Ap 15 '19

Historical lighting of Independence Square, Philadelphia. E. F. Kingsbury. Il diags plan Illum Eng Soc 12:449-56; Discussion. 456-63 no 9 '17

Outside lighting of cinema halls by gas. Illum Engr 10:294 N '17

See also Gas lamps

Gas flow

Automatic compensating flow meter. G. G. Oberfell and R. P. Mase. diag J Ind & Eng Chem 11:294-6 Ap '19

Determining the most satisfactory formula for measuring the flow of natural gas through pipe lines. E. O. Hickstein. Am Gas Eng J 108:101-2 F 2 '18

Gas flow meters for small rates of flow. A. F. Benton. diags J Ind & Eng Chem 11: 623-9 Jl '19

Pipe-line flow capacities for natural gas. E. O. Hickstein. chart Am Gas Eng J 110: 483-4 Je 7 '19

Velocity measured by impact tube. S. A. Moss. Il diags Iron Tr R 62:777-85 Mr 28 '18

See also Air flow; Anemometer; Gas measurement

Gas fuel. See Gas as fuel**Gas generators. See Gas producers****Gas governors**

Gas-pressure regulators and working assemblies. E. Viall. Il diags Am Mach 50: 1237-43 Je 26 '19

New type of district governor for pressure control. C. H. Smoot. Il diag Gas Age 43: 188-9 F 15 '19

Roots governor offered for close pressure regulation of gas exhausters and boosters. diag Gas Age 43:496-7 My 1 '19; Same. Chem & Met Eng 21:99-100 Jl 15 '19; Same cond. Iron Tr R 64:1086 Ap 24 '19; Abstract. Mech Eng 41:539 Je '19

Station and district governors—clock control has stood test of time. M. D. Dexter. Am Gas Eng J 110:464-6 My 31 '19

Gas heaters

Chemicals used to make odorless gas radiator. Il diag Gas Age 42:500 D 2 '18

Detroit gas auxiliary house heater. diags Heat & Ven 14:62 D '17

Hawks has radiators for the fall campaign. diag Gas Age 42:138 Ag 1 '18

Rounding up slacker consumers this spring. R. Falconer. Il Gas Age 43:324-5 Mr 15 '19

Welsbach thrift gas heaters. Il Gas Age 44: 359 O 15 '19

See also Gas water heaters

Gas heating

Answering fuel needs with a new heating system. G. S. Barrows. diags Am Soc Heat & V E 24:143-56 '18; Same (Operating the Rector gas heating system). Am Gas Eng J 108:124-30 F 9 '18; Discussion. Am Soc Heat & V E 24:157-63 '18

Baltimore heats big office building with gas. E. D. Milener. Il Gas Age 43:389 Ap 1 '19

Between-season gas heating. Il plans Heat & Ven 16:41-6 S '19

Developing house heating business. G. S. Barrows. Am Gas Eng J 108:580-3 Je 15 '18

Experience of dwellers in single-family houses during past winter an evidence of what can be accomplished with minimum heating equipment using gas. E. Dean. Il Am Gas Eng J 108:217-20 Mr 9 '18

Gas-appliance testing laboratory. H. M. Riley and L. B. Wilson, jr. diag Am Gas Eng J 109:217-23 S 7 '18

Gas for house heating. Am Gas Eng J 108:313-16 Ap 6 '18

Gas for house heating is found to be economical. E. V. Dally and F. Kelsey. Am Gas Eng J 108:153-5+ F 16 '18

Gas heating plants for French apartment houses. diag Gas Age 42:431-3 N 15 '18

Gas-heating problem in France. F. Miltoun. Am Gas Eng J 108:149-50 F 16 '18

Gas heating proves ideal in big dance hall. H. E. Branch. Il diag Gas Age 43:394-6 Ap 1 '19

Gas house heating cheaper than coal. H. Stansfield-Dodd. Am Gas Eng J 111:165-6 Ag 23 '19; Same. Gas Age 44:227 S 1 '19

Gas versus coke and anthracite heating. Metal Work 91:677+ My 30 '19

Heating factories with gas. J. F. Hutchins. Il Gas Age 41:528-9 Je 1 '18

Many homes in New York now entirely heated by gas. Am Gas Eng J 111:327-8 O 11 '19

Necessary to deal with domestic heating as a major branch of commercial department activities if maximum sales are to be expected. W. H. Schofield. Am Gas Eng J 108:357-9 Ap 13 '18

Pictures taken from life boom results in Portland gas heating effort. J. H. Hartog. Il Am Gas Eng J 111:427-8 N 1 '19

Possibilities of radiant heat. J. P. Conroy. Gas Age 41:77-8 Ja 15 '18

Progress of gas house-heating. Heat & Ven 15:50 Jl '18

Radiant heat more effective than convected or direct contact heat. J. N. Cadby. Am Gas Eng J 108:321-2+ Ap 6 '18

This 17 room house is heated by gas. W. T. Rasch. Il Gas Age 44:328-9 O 1 '19; Same. Metal Work 92:527-8 O 31 '19

Toronto company's campaign for house heating business. G. W. Allen. Il Am Gas Eng J 109:151-4 Ag 17 '18

Why fear electric competition? G. W. Allen. Gas Age 42:132-3 Ag 1 '18

See also Gas heaters; Gas water heaters

Gas holders

Converting a small gas holder into a gas oil tank. A. C. Howard. diag Am Gas Eng J 108:225 Mr 9 '18

Wherein a joint in the outlet pipe from a 2,000,000 cu. ft. holder 18 ft. from tank bottom and a diver cleans out bottom with holder full of gas. A. H. Harris, jr. Il diags Am Gas Eng J 110:525-30 Je 21 '19

Gas ignition. See Gas—Ignition**Gas industry**

Army post at Atlanta equals gas consumption of small city. Am Gas Eng J 110:141-2 F 15 '19

Better merchandising methods needed now. F. Kelsey. Gas Age 43:447-9 Ap 15 '19; Same. Am Gas Eng J 110:296, 305-8 Ap 5 '19

Broader vision, liberality and confidence desired. F. K. Lane. Gas Age 44:7-9 Jl 1 '19

By-product oven looms up as a serious factor in the gas business. A. H. Harris, jr. Am Gas Eng J 111:372-6 O 18 '19

Changing about in industrial alignment offers opportunities without parallel to gas industry. E. D. Carpenter. Am Gas Eng J 110:289-90 Ap 5 '19

City gas maker must aim for cheaper selling price or lose out in industrial field to producer gas. Am Gas Eng J 110:5-6 Ja 4 '19

Commercial dept. under war conditions. N. Clay. Gas Age 41:516 Je 1 '18

Discount of 15 cents sells 453 water heaters. B. E. Baker. Gas Age 44:129-30 Ag 1 '19

Filling the valleys in gas and appliance sales. W. Gould. Gas Age 44:424-5 N 1 '19

Future of gas is industrial. Am Gas Eng J 111:305-3 O 4 '19

Future of the gas industry. Engineer 125: 494-5; 126:350 Je 7, O 25 '18

Gas, although manufactured as an industrial product, is, economically, nevertheless a basic industrial material. L. W. Alwyn-Schmidt. Am Gas Eng J 111:21-3 Jl 12 '19

Gas Industry—Continued

- Gas and electricity being merchandising specialties must be sold accordingly. C. A. Magee. *Am Gas Eng J* 107:527-30 D 8 '17; Same. *Gas Age* 40:568-70 D 15 '17
- Gas business in the forefront of industry. *Gas Age* 43:344-7 Ap 1 '19
- Gas business won against lowest electric rate. G. W. Allen. *il Gas Age* 43:450-2 Ap 15 '19
- Gas industry has advanced a generation within the past five years. C. D. Shaul. *Am Gas Eng J* 110:402 My 10 '19
- Gas industry of Europe after the war. *Gas Age* 42:55-6 Jl 15 '18
- Gas iron and an effective way to sell it. H. H. Lackey. *il Am Gas Eng J* 108:231-3 Mr 9 '18
- Gas used in twenty-one manufacturing processes. F. M. Lester. *il Gas Age* 43:102-4 Ja 15 '19
- Gas versus electricity. C. N. Chubb. *Gas Age* 41:172-5 F 15 '18
- Gas vs. its various competitors in the future. W. N. Booth. *Am Gas Eng J* 108:123-4 F 9 '18
- Getting ready for the gas industry of tomorrow. E. Dean. *Am Gas Eng J* 110:1-3 Ja 4 '19
- Goal of the gas industry. F. C. Weber. *Gas Age* 43:338 Ap 1 '19
- How Chicago popularized gas laundry appliances. W. D. Roberts. *Gas Age* 44:266 S 15 '19
- How to sell city gas for industrial purposes. F. M. Lester. *Gas Age* 43:158-9 F 1 '19
- How to sell gas lighting. C. A. Luther. *Am Gas Eng J* 108:245-7 Mr 16 '18
- Increasing the sale of gas for industrial uses. J. W. Smith. *Gas Age* 43:506+ My 1 '19; Same. *Am Gas Eng J* 110:381-2+ My 3 '19
- Industrial gas sales; abstracts. C. D. Slimpin. *Am Gas Eng J* 109:199-202 Ag 31 '18; *Gas Age* 42:276-8 S 16 '18
- Industrial processes and appliances using gas. E. F. Davis. *Gas Age* 38:395-8, 453, 519-20, 612-13, 652-4; 39:65-7, 136-7, 193, 245-8, 288-91, 356-8, 414-16, 471-2, 538-9, 592-3, 638-41; 40:21-3, 71-3, 117-19, 163-7, 212-16, 259-63, 307-10, 363-4, 410-13, 465-8, 513-16, 560-3; 41:21-2, 70-3, 115-17, 168-71, 209-12, 265-6, 309-11, 361-2, 408-10, 463-4, 513-15, 561-4 O 16-D 15 '16, Ja 15 '17-Je 15 '18
- Industry cannot be made great by cheapening it. E. Dean. *Am Gas Eng J* 109:581-3 D 28 '18
- Instruction for gas company fitters; history and progress of the gas industry. G. Wehrle. *il maps Gas Age* 42:108-11, 150-3, 201-5, 261-2 Ag 1-S 16 '18
- Longer campaigns bring better results. R. R. Williams. *Gas Age* 44:176+ Ag 15 '19
- Looking at business through the consumers' eyes. M. C. Robbins. *Gas Age* 44:419-21 N 1 '19
- Making the coal go farther. L. W. Alwyn-Schmidt. *Am Gas Eng J* 111:265-7 S 27 '19
- Making the new business department an asset. J. E. Bullard. *il Am Gas Eng J* 108:397-9 Ap 27 '18
- Methods of selling standard industrial appliances. G. C. Shadwell. *Am Gas Eng J* 107:575-6 D 22 '17
- Methods that insure success in merchandising gas. *Am Gas Eng J* 108:39-42+ Ja 12 '18
- No stoppage due to war in work of commercial department run on self-supporting basis. W. B. Johnson. *Am Gas Eng J* 109:208+ Ag 31 '18
- Opportunity for sale of industrial gas; uses of gas by photographers, butchers, building trades, etc. *il diags Gas Age* 42:126-31 Ag 1 '18
- Paris echoes in the gas industry. F. Miltoun. *Am Gas Eng J* 109:242-3 S 14 '18
- Photographers, dentists and others use gas. G. W. Allen. *il Gas Age* 44:38-9 Jl 1 '19
- Possibilities for industrial fuel business in small cities in inland agricultural districts. *Am Gas Eng J* 108:543-5+ Je 8 '18
- Possibilities of future for gas companies from British standpoint. N. S. Cox. *Am Gas Eng J* 109:539-41 N 9 '18
- Present and prospective status of the gas industry. S. W. Parr. *W Soc E J* 24:177-83; Discussion. 183-4 Mr '19
- Proper installations must follow sales immediately. G. I. Vincent. *Gas Age* 44:430-1 N 1 '19
- Reduction in price of gas to the consumer a way to prosperity for the gas industry. L. W. Alwyn-Schmidt. *Am Gas Eng J* 111:417-19 N 1 '19
- Reorganizing commercial departments for profit. A. P. Post. *Gas Age* 43:154-6 F 1 '19
- Save and work up by-products into saleable form. J. A. Norcross. *Gas Age* 43:268-9 Mr 1 '19
- Seeking a solution of the problem on which its existence depends the gas industry turns to consideration of the by-product coke oven. C. B. Cooke, jr. *chart Am Gas Eng J* 111:485-91 N 22 '19
- Service builds up sales. W. B. Stoddard. *Am Gas Eng J* 111:212-13 S 6 '19
- Significant gas sales facts and figures. W. Gould. *Am Gas Eng J* 110:97-8+ F 1 '19
- Some needs of the gas industry. H. E. Gilbert. *Gas Age* 43:83-4 Ja 15 '19
- Time is ripe for merchandising and the need is more imperative than ever before. E. Dean. *Am Gas Eng J* 109:561-2 D 21 '18
- To be a good commercial man is to be something well worth while. H. E. Danner. *Am Gas Eng J* 108:447+ My 11 '18
- True industrial field lies in the hands of the average consumer and not with the largest factories. H. M. Crawford. *Am Gas Eng J* 111:321-2 O 11 '19
- Unsold market for gas in homes. C. E. Bartlett. *Gas Age* 44:422-3 N 1 '19
- Unsold market for gas so much greater than the sold that no one need worry as to its limits. C. E. Bartlett. *Am Gas Eng J* 111:357-8, 386-8 O 18 '19
- Vital issues in the gas industry ably discussed. J. W. St John. *Gas Age* 43:412-14 Ap 15 '19
- War is over—now to rebuild. *Gas Age* 42:419-20 N 15 '18
- Why not sell cooking utensils? W. B. Johnson. *Gas Age* 42:228 S 2 '18
- Widening of scope of electro-galvanizing and allied industries combined with coal costs rising out of proportion to gas make this a fertile field for industrial gas development. G. C. Shadwell. *il diag Am Gas Eng J* 111:157-63 Ag 23 '19
- With the generating plant representing only third of the investment, load factor in the gas industry becomes of real importance. T. King. *charts Am Gas Eng J* 110:545-50 Je 28 '19
- Your competitor may be an important factor in the economic scheme of the nation. L. W. Alwyn-Schmidt. *Am Gas Eng J* 111:70-2 Jl 26 '19

See also Gas, Natural; Gas appliances; Gas as fuel; Gas companies; Gas cooking; Gas distribution; Gas heating; Gas lamps; Gas lighting

Advertising

- Advertising gas with appliances. A. L. Crane. *Gas Age* 41:175-6 F 15 '18
- Boys' and girls' canning clubs; the Food administration, the board of education and the gas company worked hand in hand in Missouri. L. Resnick. *il Am Gas Eng J* 109:248-50 S 14 '18
- Business in an unusual way; gas range campaign. R. Weidaw. *diag Gas Age* 41:413-14 My 1 '18
- Co-operative publicity. B. Phillips. *Gas Age* 44:232 S 1 '19
- Domestic science school as a sales producer. J. E. Philpott. *Am Gas Eng J* 111:173-4 Ag 23 '19; Same. *Gas Age* 44:226-7 S 1 '19
- Effective window demonstration. I. R. Merritt. *Am Gas Eng J* 109:527-8 D 7 '18
- English gas window displays impress trade observer as being much behind American attainment. E. A. Dench. *il Am Gas Eng J* 111:329-30 O 11 '19

Gas industry—Advertising—Continued

Gas educational lecturer can find enough of the colorful and dramatic not only to attract, but to hold audiences. G: W. Allen. Am Gas Eng J 110:137-9 F 15 '19
Get ready for gas range week May 12 to 17. C. W. Pierson. il Gas Age 43:500-2 My 1 '19

How H. M. Byllesby & co. sell stock to consumers. S. C. Lambert. Gas Age 43:106-7 Ja 15 '19

How John Bull advertises gas and appliances. C. W. Pierson. il Gas Age 44:76-8 Jl 15 '19

How John Kolbe uses plans to sell appliances. B. B. Baker. diags plan Gas Age 44:264-5 S 15 '19

How movies can be used to popularize gas. H. Levey. il Gas Age 43:214-15 F 15 '19

Is it necessary to ask will it pay the gas company to avail itself of its possibilities? G. D. Mantle. Am Gas Eng J 111:298-301 O 4 '19

Leverage to the hidden revenue. M. L. Kane. Am Gas Eng J 110:254 Mr 22 '19

Mail advertising has been proved most effective in co-operative sales service of manufacturer and dealer. H. G. Mentzer. Am Gas Eng J 108:59+ Ja 19 '18

Make sure that the story will get home by addressing a circular to the child. Am Gas Eng J 110:471-3 My 31 '19

Making best use of advertising in war time. G: W. Allen. Gas Age 42:174-6 Ag 15 '18

Merchandising efforts necessary on the part of gas companies in wartime. J. E. Bullard. Am Gas Eng J 108:183-6 F 23 '18

Needed! a new viewpoint on publicity. E. Dean. Am Gas Eng J 110:161-3 F 22 '19

1917 report of the N. C. G. A. window display committee. Am Gas Eng J 108:64 Ja 19 '18

Pawtucket window display of products made in the city. C. E. Lasher. il Gas Age 41:415-16 My 1 '18

Pictures taken from life boom results in Portland gas heating effort. J: H. Hartog. il Am Gas Eng J 111:427-8 N 1 '19

Poor working girl now a home builder. I. R. Merritt. Am Gas Eng J 109:568-9 D 21 '18

Practical hints for advertising gas service. J: Weedon. Gas Age 44:270+ S 15 '19

Preparation of gas company publicity. F. M. Lester. Am Gas Eng J 108:255-8 Mr 16 '18

Restrictions of the use of gas and electricity in England. Illum Engr 11:92-3 Mr '18

St Louis company's bread cast upon the waters is returned many fold. L. Resnick. il Am Gas Eng J 108:617-19+ Je 29 '18

Schenectady window display of Radiantfire heaters. il Gas Age 41:320 Ap 1 '18

Scope of the advertising section of the American gas association. Am Gas Eng J 111:377-8 O 18 '19

Selling gas to school children. J. E. Darst. il Am Gas Eng J 111:139-40+ Ag 16 '19

Selling 1,000 thrift lights on a rainy afternoon. C. W. Pierson. il Gas Age 43:210-13 F 15 '19

Sold: 178 ranges in 62 hours. W. M. Williams. il Gas Age 44:126+ Ag 1 '19

Value of direct mail advertising in the gas business. J. E. Bullard. Am Gas Eng J 111:67-8 Jl 26 '19

Window display as a selling force. O: Lasche. il Gas Age 41:369-70 Ap 15 '18

Window display during range week. O: S. Lasche. il Gas Age 41:414-15 My 1 '18

Window display to push gas ranges. O: S. Lasche. il Gas Age 41:565 Je 15 '18

Would have central publicity agency of gas field map out line of campaign and leave to local companies much of the work of carrying it on in its territory. R. Elsmann. Am Gas Eng J 111:65-6 Jl 26 '19

Exhibitions

Exhibit of the American gas association convention. Am Gas Eng J 111:384-5 O 18 '19

Statistics

Instruction for gas company fitters. G: Wehrle. Gas Age 42:262 S 16 '18

War measures

Effect of war on gas lighting; abstracts. T. P. Piser. Gas Age 41:236, 284 Mr 1-15 '18; Am Gas Eng J 108:349-51 Ap 13 '18; Discussion. Gas Age 41:206 Mr 1 '18

Efforts to ration gas in England thus far have proved that a fair and equitable restriction is a difficult problem. N. H. Humphrys. Am Gas Eng J 109:125-6 Ag 10 '18

Gas supply may be curtailed to save coal. Gas Age 42:51-2 Jl 15 '18

Gas works carbonise charcoal for gas masks. W. E. Brophy. il diags flow sheet Gas Age 44:189-92 S 1 '19

Paris gas works in war time. Gas Age 41:418-19 My 1 '18

Restrictions on use of gas in Germany. Gas Age 41:79-80 Ja 15 '18

With more coal fields shut down Paris turns to gas to conserve the part of its coal supply that remains. F. Miltoun. Am Gas Eng J 108:615-16 Je 29 '18

Working of the new gas regime in Paris. F. Miltoun. Am Gas Eng J 108:420-1 My 4 '18

Canada

Lower heat unit gas recommended for Canada. R. O. Wynne-Roberts. Gas Age 44:201-2 S 1 '19

France

French gas industry after the war. F. Rouland. Gas Age 42:385-6 N 1 '18

Improvement in coal supply situation in France makes possible the restarting of 111 gas works. F. Miltoun. Am Gas Eng J 108:51 Ja 19 '18

Germany

Gas coke price escapes regulation in Germany. Gas Age 43:140-2 F 1 '19

German gas industry during the war. L. W. Alwyn-Schmidt. Gas Age 43:237-9 Mr 1 '19

How war affected the German gas industry. Gas Age 42:378-80 N 1 '18

Meeting of the German gas association. Gas Age 41:225-8 Mr 1 '18

Great Britain

Coal and gas situation in England. Gas Age 41:100-1 F 1 '18

Effects of war conditions on British gas industry. N. H. Humphrys. Gas Age 44:144-6 Ag 15 '19

English gas company reports for first half of the current year. N. H. Humphrys. Am Gas Eng J 107:514-15 D 8 '17

Financial status of British gas undertakings. N. H. Humphrys. Gas Age 44:238-9 S 15 '19

Gas efficiency. Gas Age 44:253 S 15 '19

Present conditions in the British gas industry. D. M. Watson. Gas Age 44:97-8 Ag 1 '19

Indiana

Data filed showing artificial gas production and consumption in Indiana. Am Gas Eng J 109:149-50 Ag 17 '18

Italy

Effect of war on Italian gas industry. Gas Age 42:12 Jl 1 '18

Michigan

Michigan gas affairs and future prospects. S: Ball. Gas Age 44:392-4 N 1 '19

New England

Discussion at March meeting of Gas sales association of New England. Am Gas Eng J 108:323-5+ Ap 6 '18

Gas sales association of New England held regular monthly meeting Feb. 14. Am Gas Eng J 110:235-6, 239-40+ Mr 15 '19

New England gas progress. J. F. Wing. Gas Age 41:203-5 Mr 1 '18

New York (city)

New York welcomes the gas men of the nation. il map Gas Age 44:273-5 O 1 '19

Record gas output in New York city. Gas Age 41:181 F 15 '18

Gas Industry—Continued

United States

- Artificial gas and byproducts in 1917. Coal Age 16:278 Ag 14 '19
- Committee devoted to vigorous pushing of development of gas industry needed. G. W. Allen. Am Gas Eng J 109:197-8+ Ag 31 '18
- Displacing natural gas with manufactured gas. J. H. Maxon. Gas Age 43:583-5 Je 2 '19
- Foresee gas companies supplying all fuel needs of their territories. C. G. Gilbert and J. E. Pogue. Am Gas Eng J 108:391-2 Ap 27 '18
- Gas industry may be means by which American scale of wages may be retained while nation competes successfully with European nations in the foreign market. E. Dean. Am Gas Eng J 109:521-2 D 7 '18
- Gas manufactured in United States in 1917. C. E. Leshner. Am Gas Eng J 110:165-6 F 22 '19
- Government urges restriction on business and manufacture of lesser importance. Am Gas Eng J 109:214 Ag 31 '18
- Industry exists for a higher purpose than that merely of supporting its promoters and giving employment to men and women. G. B. Cortelyou. Am Gas Eng J 110:251-4 Mr 22 '19; Same cond. Gas Age 43:295-6 Mr 15 '19
- Our national coal supply and its utilization. C. G. Gilbert and J. E. Pogue. Gas Age 42:100 Ag 1 '18
- Unsold market for gas so much greater than the sold that no one need worry as to its limits. C. E. Bartlett. Am Gas Eng J 111:357-8, 386-8 O 18 '19
- Vital issues affecting the gas industry today. J. F. Kuster. Gas Age 44:339-43 O 15 '19
- Gas industry and the plumbing trade**
- No reason why quality in installations should be sacrificed in securing co-operation of plumbers in increasing use of gas. E. M. Paterson. Am Gas Eng J 111:169-73 Ag 23 '19
- Now that cost of business is steadily climbing it is more important than ever that all sales resistance be reduced to a minimum. J. E. Bullard. Am Gas Eng J 111:93-4 Ag 2 '19
- Gas irons**
- Gas iron and an effective way to sell it. H. H. Lackey. Il Am Gas Eng J 108:231-3 Mr 9 '18
- Gas lamps**
- Gas-mantle lighting conditions in ten large cities in the United States. R. S. McBride and C. E. Reinicker. U S Bur Stand Tech Pa 99:1-37 '17
- Growth and present status of systems used in the maintenance of gas lamps in residences. E. B. Myers. Illum Eng Soc 12:425-9; Discussion. 430-2 no 8 '17
- Influence of quality of gas and other factors on the efficiency of gas-mantle lamps. R. S. McBride and others. Il U S Bur Stand Tech Pa 110:1-49 '18; Excerpts. Gas Age 42:468-70, 519-21 D 2-16 '18
- Viewpoint of a field man before and after visiting a lamp factory. J. B. Anderson. Am Gas Eng J 110:275-6+ Mr 29 '19
- See also Acetylene lamps; Gas burners; Gas fixtures; Gas lighting; Gas mantles
- Gas lighting**
- Ability to talk people out of purchases not to be classed as salesmanship. J. E. Bullard. Am Gas Eng J 110:269-70 Mr 29 '19
- All-gas skating rinks now. Il Gas Age 42:229-30 S 2 '18
- Capitalizing the lure of light to rent and sell stores. J. E. Bullard. Il Am Gas Eng J 110:229-31 Mr 15 '19
- Church light a help towards filling in a valley in the load curve. J. E. Bullard. Am Gas Eng J 110:481-2 Je 7 '19
- Discussion of the present status of gas lighting. Illum Eng Soc 12:488-505 no 9 '17; Excerpt. Gas Age 41:140 F 1 '18
- Do you believe in gas lighting? C. A. Luther. Gas Age 41:302-3, 380, 432, 484, 534 Ap 1-Je 1 '18
- Effect of war on gas lighting; abstracts. T. H. Piser. Gas Age 41:236, 334 Mr 1, Ap 1 '18; Am Gas Eng J 108:349-51 Ap 13 '18; Discussion. Gas Age 41:206 Mr 1 '18
- Entire factory equipped with gas lights. S. E. Wardell. Il Am Gas Eng J 108:145-6 F 16 '18
- Failure to install fixtures on a par with the furnishings a serious setback to gas lighting. J. E. Bullard. Am Gas Eng J 111:437-8 N 8 '19
- Gas arcs produce highest quality of daylight. C. A. Luther. Am Gas Eng J 111:405-6 O 25 '19
- Gas displaces electricity in church lighting. Il Gas Age 41:201-2 Mr 1 '18
- Gas lighting of streets and highways in France. F. Miltoun. Am Gas Eng J 108:291 Mr 30 '18
- Gas lighting opportunities offered by prohibition. J. E. Bullard. Am Gas Eng J 110:473-4 My 31 '19
- Gas office in New York city lighted by gas. Il Gas Age 41:445-7 My 15 '18
- Gas used for residential lighting. J. C. Aaron. Gas Age 41:391-2 My 1 '18
- Gas vs. electric lighting in regard to the solution of wartime problems. R. ff. Pierce. Am Gas Eng J 108:134 F 9 '18
- Group and duct system of high pressure gas lighting; abstract. F. Pykett. Illum Engr 12:108 Ap '19
- How prestige of gas street lighting has been enhanced through the transportation of some millions of American soldiers to Europe. J. E. Bullard. Am Gas Eng J 110:89-90 F 1 '19
- How to sell gas lighting. C. A. Luther. Am Gas Eng J 108:245-7 Mr 16 '18
- Industrial lighting a field of wide opportunity. R. ff. Pierce. Am Gas Eng J 108:317-18 Ap 6 '18
- Influence of quality of gas and other factors on the efficiency of gas-mantle lamps. R. S. McBride and others. Il U S Bur Stand Tech Pa 110:1-49 '18; Excerpts. Gas Age 42:468-70, 519-21 D 2-16 '18
- Lighting ration in practice. Illum Engr 11:177-81 Jl '18
- Meeting of the Gas sales association of New England at Boston, Dec. 14. Am Gas Eng J 107:599-602 D 29 '17
- Not for one second in 96 years have New York companies gas coals burned out. Am Gas Eng J 110:231-2 Mr 15 '19
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- Gages for driving box work. J. H. Hahn. *diags* Ry Mech Eng 92:164 Mr '18
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- Locomotive fuel losses at terminals. J. M. Nicholson. *Ry R* 64:752-4 *My* 24 '19; Same cond. *Ry Mech Eng* 93:524-5 *S* '19
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- New type of tire expander for use in coal mines. *il* *Coal Age* 15:187 *Ja* 23 '19
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- Current velocity re mine explosion. J. Verner. diags *Coal Age* 15:676-7 *Ap* 10 '19
- Effect of the velocity of ventilating current upon mine explosions. G. S. Rice and W. L. Egy. diags *Coal Age* 15:308-9 *F* 13 '19
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- What caused the explosion? *Coal Age* 13:645, 983, 1126 *Ap* 6, *My* 25, *Je* 15 '18

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Mine firebosses

- Alabama firebosses' examination Birmingham, Jan. 20-23, 1919. diags plan *Coal Age* 15:729 *Ap* 17 '19
- Bituminous (Penn.) firebosses' examination, April 11, 1919. *Coal Age* 15:1181; 16:33 *Je* 26-*Jl* 3 '19
- Coöperation between firebosses and assistant foremen. A. T. Dickson. *Coal Age* 16:528-9 *S* 25 '19
- Efficiency in firebossing. *Coal Age* 14:1133-4; 15:199-200, 245-6, 417-18, 462-3, 589-90, 679-80, 727, 767-8, 829-30 *D* 19 '18, *Ja* 23-30, *F* 27, *Mr* 6, 27, *Ap* 10-*My* 1 '19
- Examination of a mine. *Coal Age* 12:1069-70; 13:256, 431, 472, 600, 643-4 *D* 22 '17, *F* 2, *Mr* 2-9, 30-*Ap* 6 '18
- Firebosses as state officials. *Coal Age* 15:544-5, 726, 876, 919, 1178-9; 16:31, 119, 245-6, 334-5 *Mr* 20, *Ap* 17, *My* 8-15, *Je* 26-*Jl* 3, 17, *Ag* 7, 21 '19

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- Disastrous mine fire at Villa, W. Va. *Coal Age* 13:1106 *Je* 15 '18
- Engineering problems encountered during recent mine fire at Utah-Apex mine, Bingham Canyon, Utah. V. S. Rood and J. A. Norden. diags *Am Inst Min E Bul* 138:1093-1104 *Je* '18
- Fire prevention in anthracite coal mines. M. W. Price. *Coal Age* 16:651-2 *O* 16 '19
- Hydraulic-filling method to extinguish fires in Butte mines. *Eng & Min J* 104:1026 *D* 15 '17
- Measures for controlling fires at the Copper Queen mine. G. Sherman. diags plan *Am Inst Min E Bul* 133:169-73 *Ja* '18; Excerpt. *Eng & Min J* 105:559-60 *Mr* 23 '18; Discussion. *Am Inst Min E Bul* 136:807-8 *Ap* '18
- Mudding coal at St Eloy, France. M. A. Plasard. diags plan *Coal Age* 15:266-9 *F* 6 '19
- Sealing off fire on intake. *Coal Age* 13:1173; 14:33, 79, 143, 187-9, 236, 285-6, 373-4 *Je* 22, *Jl* 6-*Ag* 8, 22 '18

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Bituminous (Penn.) mine foremen's examination, April 8-10, 1919. Coal Age 15:881, 925 My 8-15 '19

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Corporal in every squad of eight. Coal Age 14:608-9 S 26 '18

Holding men in the mine. W. H. Noone. Coal Age 13:1168 Je 22 '18

Let the operator get on the job. Coal Age 14: 135, 656-7, 793, 1002-3, 1047-8, 1176-7 Jl 26, O 3, 24, N 28, D 5, 26 '18

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Prime producer in a coal mine. Coal Age 15: 637, 1011, 1137; 16:459-60 Ap 3, My 29, Je 19, S 11 '19

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Standardize the mine foreman. G. E. Daugherty. Coal Age 12:1108-9 D 29 '17

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Mine gases

Barometer vs. outflow of gas. Coal Age 15: 634, 1009-10; 16:159-61, 502-3 Ap 3, My 29, Jl 24, S 18 '19

Bumps and outbursts of gas in the Crownsnest Pass coal field. G. S. Rice. diags maps Coal Age 15:660-5 Ap 10 '19

Chart of properties of mine gases. G. A. Burrell, '18 U.S. Bur. mines, Washington, D.C. Clearing a heading of gas. Coal Age 12:823, 990, 1027; 13:31-2, 159, 302, 348, 388 N 10, D 8-15 '17, Ja 5, 19, F 9-23 '18

Conservation of mine gas. Coal Age 12:1029-30; 13:210-12, 345-6 D 15 '17, Ja 26, F 16 '18

Detection of mine gas. Coal Age 13:984 My 25 '18

Effect of breaking of coal on the emission of gas. R. Dunn. Coal Age 16:20 Jl 3 '19

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Back to rope haulage. F. A. Pocock. Coal Age 12:1044-5 D 22 '17

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Efficient locomotive haulage depends a great deal on motorman. E. Steck. Coal Age 15: 479 Mr 13 '19

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Electric mine haulage. T. O. Hughes. Coal Age 14:233-4 Ag 1 '18

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89th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

94th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

99th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

104th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

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114th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

119th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

124th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

129th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

134th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

139th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

144th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

149th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

154th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

159th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

164th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

169th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

174th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

179th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

184th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

189th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

194th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

199th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

204th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

209th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

214th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

219th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

224th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

229th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

234th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

239th annual meeting, Pittsburgh, June 10-13. Dom Eng 87:487, 530-2 Je 14-21 '19; Heat & Ven 16:33-54 J1 '19; Metal Work 91:811-13 Je 20 '19; Power 49:992-3 Je 24 '19

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- Scheme for an electrical proving house. Inst E E J 56:26-7 Je '18
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- Personnel of Underwriters' electrical committee. Elec W 72:218 Ag 3 '18

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- Delegates from iron, steel, machinery and allied trades at 1918 convention. Iron Age 101:1118-19 Ap 25 '18
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- 6th National foreign trade convention, Chicago, April 24-26. Ry Age 66:1087-90 My 2 '19; Iron Age 103:1161-8 My 1 '19

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- 22d annual convention, New York, Nov. 13-14. Iron Age 102:1280-1 N 21 '18; Iron Tr R 63:1189-91 N 21 '18

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- Work of U.S. Bureau of standards in gas field told in annual report. S. W. Stratton. Am Gas Eng J 110:24-5 Ja 11 '19

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- 10th show, New York, Feb. 25-28. il plan Good Roads n s 17:108-10+ Mr 8 '19

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- 7th annual meeting, Pittsburgh, May 24-25. Iron Age 101:1418-19 My 30 '18; Metal Work 89:717-20 My 31 '18

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- 21st annual convention, Chicago, June 20-21. Am Lumberman 2249:38-41+; 2250:47-53 Je 22-29 '18

- 22d annual convention, Chicago. Am Lumberman 2301:55-8; 2302:51-5 Je 21-28 '19

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- Annual meeting, New York, May 14. Good Roads n s 17:217 My 17 '19; Eng N 82:1036 My 22 '19

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- Annual convention, Cincinnati, Nov. 20-21. Ry Age 65:963-6 N 29 '18

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- Meeting, Buffalo, N.Y., Aug. 29-30. Ry Age 65: 453-5 S 6 '18

- Spring meeting, Chicago, March 21-22. Ry Age 64:792-3 Mr 29 '18

- Spring meeting, New Orleans, March 11-12. Ry Age 66:837-8 Mr 28 '19

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National lime association (formerly National lime manufacturers association)

- Reorganization. Concrete 15:sup74 N '19

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- 16th annual meeting, Cleveland, O., June 19-20. Concrete 13:sup6 JI '18

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- Opportunity. W. Compton. Am Lumberman 2292:49-50 Ap 19 '19

- 16th annual meeting, Chicago, May 20-22. Am Lumberman 2245:44-54 My 25 '18

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- Annual meeting, New York, Dec. 10-11. Am Mach 49:1149-50 D 19 '18

- 18th annual convention, New York, Oct. 15-16. Iron Tr R 65:1136-7 O 23 '19; Iron Age 104:1078-9 N 27 '19; Mach 26:275 N '19

- Semiannual convention, Atlantic City, N. J., May 16-17. Iron Age 101:1330-4+ My 23 '18; Iron Tr R 62:1331-3 My 23 '18; Am Mach 48:959-67 Je 6 '18

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- Accident record under government operation. Ry Age 67:138-9 JI 25 '19
- Accidents at railway grade crossings. Good Roads n s 18:164+ O 1 '19
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- Disastrous collision at Shepherdsville, Kentucky. Ry Age 63:1185; 64:488-9, 498 D 28 '17, Mr 8 '18
- Flagging and its relation to railroad accidents. C. C. McChord. Ry Age 66:1528-30 Je 20 '19
- Government operation and railroad accidents. Ry Age 65:115-16 JI 19 '18
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- I. C. C. report on Ivanhoe collision. Ry Age 65:623-4 O 4 '18
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- Personal injuries due to locomotive failures. J. L. Mohun. Ry Age 67:113-18 JI 18 '19; Same. Ry Mech Eng 93:458-63 Ag '19
- Question of safety. Ry Age 66:878 Ap 4 '19
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- Report on collision of Atlantic City trains. C. S. Lake. Ry Age 67:514-15 S 12 '19
- Report on Larnord collision, Oct. 21. Ry Age 63:1171 D 28 '17

- Report on Nashville collision. Ry Age 65:664-5 O 11 '18
- Report on South Byron collision. W. P. Borland; W. H. Elliott. Ry Age 66:1010-11 Ap 18 '19
- Spice bar causes railway accident. Eng N 80:449 Mr 7 '18
- Thirty-four passengers killed in collisions. il Ry Age 66:212 Ja 17 '19
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- Accounting officers to co-operate with Railroad administration. Ry Age 65:776-7 N 1 '18
- Accounting; report of committee. Ry Age 66:287-9 Ja 31 '19
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- Automatic train control. C. C. Anthony and A. G. Shaver. Ry Age 67:613-14 S 26 '19
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- Exhibition of automatic train stop on the Chesapeake & Ohio. il Ry Age 66:846-7 Mr 28 '19; Ry R 64:541-6 Ap 12 '19
- Mr Sprague's automatic-stop proposals. Ry Age 66:1816-17 Je 27 '19
- National automatic train control board. Ry R 64:105-6 Ja 18 '19
- Need of development of automatic train stops. Ry R 63:52-3 JI 13 '18
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- New York report on South Byron collision. Ry Age 66:491-3 F 28 '19
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- American railway bridge and building association 23th annual convention, Chicago. Ry R 63:559-61 O 19 '18
 Concrete moulding plant, Pennsylvania, R. R. il diags plans Ry R 64:425-32 Mr 22 '19
 Essentials of bridge and building maintenance. C. A. Morse. Ry R 63:561-3 O 19 '18
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- Assessment and collection of charges. Ry R 63:786-7 N 30 '18
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- American-built railroad cutoff will relieve traffic congestion in France. R. K. Tomlin, jr. il Eng N 81:832-5 N 7 '18
 Big Four increases capacity at congested points. il diags map Ry Age 66:1545-8, 1818-19 Je 20-27 '19
 Building a seven-mile railroad in 32 days' time. il Ry Age 64:1317-18 My 31 '18
 Constructing logging railroad with a ditcher. A. M. Wolf. il Ry R 62:60-1 Ja 12 '18
 Heavy railway construction along Mexican border. il map Ry Age 66:931-4 Ap 11 '19
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 Lackawanna improvements in Orange, N.J. il diags Ry Age 65:845-50 N 15 sec 1 '18
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 Murman railroad: new outlet to sea in Russia. V. Goriachkovsky. il map Eng N 82:1023-6 My 22 '19
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- Progress of the Alaskan railroad. F. K. Lane. il Ry Age 66:543-7 Mr 7 '19
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- Approximate cost of stopping a train. Ry Age 64:708 Mr 22 '18
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 Balkwill articulated manganese steel crossing. il diag Ry R 62:448-51 Mr 23 '18; Ry Age 65:138 JI 19 '18
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Dump cars and wagons enlarge railway fills. diags Eng N 82:419-20 F 27 '19
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 Advantages of electrification explained to Canadian engineers. F. H. Shepard. Elec R 74:787 My 17 '19
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 Further railroad electrification important. F. H. Shepard. il diags Elec Ry J 51:4-7 Ja 5 '18
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- Railway electrification in France and Belgium. R. E. Thayer. Ry Age 67:93-4 Jl 18 '19
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- Tendencies in electrification. E. A. Palmer. Ry R 63:176-8 Ag 3 '18
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- Utah electrification embodies latest developments. diag Elec Ry J 50:1070-1 D 15 '17
- Value of electric power in relieving coal shortage. Ry R 62:273 F 23 '18; Same. Coal Age 13:504 Mr 16 '18
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Rates

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Alabama

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